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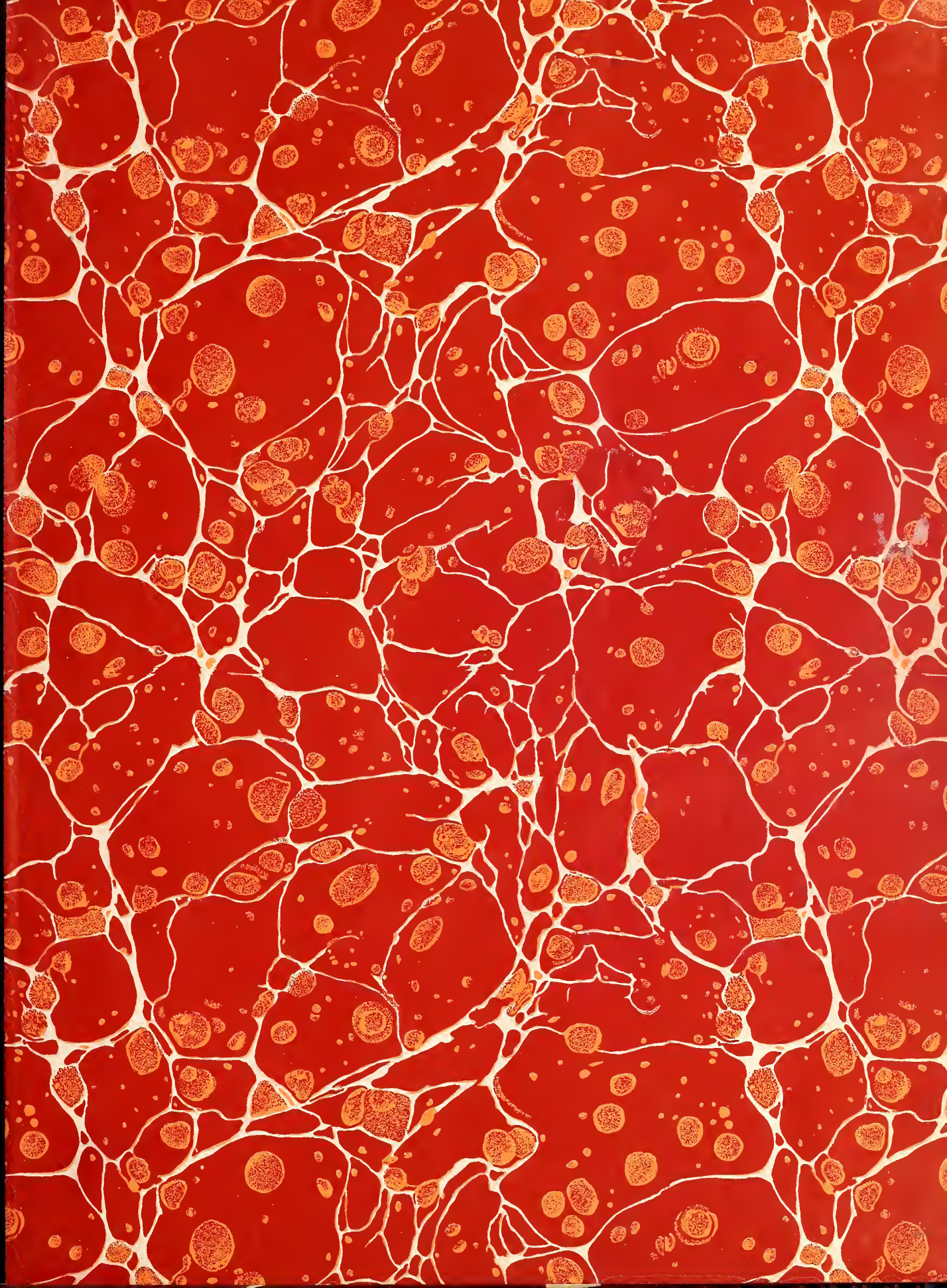

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Bureau of Agricultural Economics
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WORLD APPLE PRODUCTION AND TRADE

by

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assisted by

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World Apple Production and Trade

The production of dessert and cooking apples in the chief countries of the world has shown an upward trend in recent years, whereas cider-apple production has been declining. The increase in production of the higher quality fruit has occurred despite a rather general decline in the acreage devoted to apple orchards and is to be explained largely by the shift, both in the United States and other more important apple-exporting countries, from farm orchards to higher yielding commercial orchards. The change has been accompanied by a better selection of varieties planted and an improvement in cultural and marketing practices, such as improved grading and packing which has resulted in a higher proportion of quality fruit. A number of European countries have also made definite progress in this respect.

With the increase in world production there has been an even larger increase in the quantity of apples entering into world trade. This has been made possible by the development of more efficient and satisfactory methods of transporting fruit from producing to consuming countries. Not only apples, but pears, peaches, plums, grapes, melons, and many other highly perishable fruits are now shipped long distances. Consequently both the quality and the quantity of apples and other fruits have been raised, thus increasing the difficulty of disposing of the United States apple surplus in foreign markets. The situation has also been aggravated in the last few years by the various embargoes and trade restrictions adopted by many countries together with depressed business conditions. There has been however an increased demand for fruit in the diet of most peoples, which has tended partially to offset these adverse influences.

Summary

Apple trees have been growing wild in temperate Europe and Asia since prehistoric times. The fruit is thought to have originated in northern Asia between the Bosphorus and the Caspian Sea. The Greeks and the Romans both cultivated apples and pears. Roman history records the existence of several distinct varieties of apples as well as pears. The apple industry was spread by the Greeks and the Romans to practically all parts of Europe. Years later apples were introduced to the New World from European countries. At the present time apples are among the most widely grown and important of fruits. Even in semi-tropical countries some apples are grown at the higher elevations. The greatest production, however, takes place in those countries located between the 30th and 50th parallels in the Northern and Southern Hemispheres. In these latitudes, we find the large producing regions of North America, Europe, Asia, Australia, New Zealand, South America, and South Africa. The general prevalence of apple growing throughout the world precludes a discussion of apple industry in every country where the fruit is grown. Only the most important countries are considered here.

Area: The world area in cultivated apple trees is, as nearly as can be estimated at present, about 6,940,000 acres. This acreage is planted with approximately 415,000,000 trees yielding an average of around 550,000,000 bushels of apples a year. Of the total 6,940,000 acres, 35 per cent is located in the United States, 14 per cent in Russia, 10½ per cent in France, 10½ per cent in Germany, 3 per cent in Canada, 3 per cent in Poland and 24 per cent in all other countries. (See table page 4).

Production: The leading apple-producing countries of the world, arranged in their approximate order of importance, are the United States, France, Russia, Germany, Poland, Switzerland, Rumania, Canada, England and Wales, Australia, Belgium, the Netherlands, Austria, Czechoslovakia, Yugoslavia, Italy, Hungary, Spain, Japan, and New Zealand. Of the total world production of roughly 550,000,000 bushels, the United States supplies on an average 35 per cent, France 12.5 per cent, Russia 9 per cent, Germany 8 per cent, Poland 5.5 per cent, Switzerland 2.5 per cent, Rumania 2.5 per cent, Canada 2.4 per cent, England and Wales 2.2 per cent and all other countries 20.4 per cent (See table page 6). From the standpoint of exports the most important apple-producing countries are the United States, Canada, Australia, Switzerland, Yugoslavia, Italy, New Zealand, Belgium, and Russia. It will be noted that the chief European importing countries also produce large quantities of apples, most of which are cooking and cider sorts. This will explain why only quality apples should be exported to these markets.

Consumption: The countries with the largest per capita consumption of dessert and cooking apples are usually countries producing a surplus of apples. On an average during the four-year period 1927-28 to 1930-31 the per capita consumption of dessert and cooking apples in Australia amounted to 39.7 pounds; New Zealand, 36.5 pounds; United States, 30.9 pounds; Canada, 28.8 pounds; United Kingdom, 28.1 pounds; Germany, about 28 pounds; and Switzerland, 19.8 pounds. From the standpoint of apple consumption for all purposes including, in addition to dessert and cooking apples, all other apples (i.e., cider, drying, and canning apples), the most important are: France, 60 pounds; Germany, 52.7 pounds; United States, 51.6 pounds; Switz-

APPLES: Acreage and number of trees in principal countries of the world

Country	Acreage	Trees		
		Total	Bearing	Non bearing
	Acres	Number	Number	Number
United States	a/ 2,423,000	b/ 116,304,000	88,848,967	27,455,303
Russia	c/ 1,000,000	c/ 60,000,000		
France	c/ 735,000	c/ 50,000,000		
Germany	d/ 714,000	f/h/50,000,000	50,000,000	
Canada	a/ 204,200	e/ 9,802,000	e/ 9,802,218	
Poland	d/ 200,000	f/ 14,000,000		
Czechoslovakia	d/ 162,400	f/ 11,367,000		
England and Wales	c/ 140,000	c/ 9,800,000		
Rumania	d/ 120,000	b/ 8,414,000		
Yugoslavia	d/ 101,900	f/ 7,134,500		
Australia	b/ 97,500	a/ 4,679,000	a/ 3,909,456	a/ 769,968
Netherlands	i/ 76,300	d/ 5,338,000		
Switzerland	d/ 71,300	b/ 4,994,000	b/ 4,994,122	
Sweden	d/ 64,300	h/ 4,500,000		
Denmark	d/ 51,200	b/ 3,584,000		
Spain	d/ 46,600	3,265,000	k/ 2,378,748	l/ 886,655
Japan	d/ 40,850	f/ 2,860,000		
Hungary	37,200	2,606,000		
Latvia	d/ 35,800	b/ 2,509,000		
Union of S. Africa	d/ 35,000	j/ 2,464,000		
Chosen	d/ 22,500	f/ 1,577,000		
Norway	d/ 16,900	b/ 1,181,000		
New Zealand	j/ 16,800	b/ 1,306,000		
Esthonia	d/ 9,600	g/ 673,000		
Northern Ireland	e/ 7,500	c/ 521,500		
Luxemburg	d/ 6,100	f/ 427,000		
Mexico	a/ 4,800	e/ 229,000	e/ 229,329	
Bulgaria	b/ 1,400	c/ 97,000		
Uruguay	b/ 1,300	a/ 61,000		
Scotland	f/ 300	d/ 20,000		
Others	m/ 500,000	m/ 35,000,000		
World total	6,943,750	414,713,000		

Compiled by Foreign Agricultural Service. a/ Estimated at 48 trees per acre. b/ 1929. c/ Roughly estimated from production figures. d/ Estimated at 70 trees to the acre. e/ 1921. f/ 1930. g/ 1925. h/ Unofficial estimate. i/ 1928. j/ 1926. k/ Trees scattered. l/ Trees in regular orchards. m/ Rough estimate.

erland, 40.5 pounds; Australia, 39.7 pounds; Poland, 36.5 pounds; New Zealand, 36.5 pounds; United Kingdom, 31.7 pounds; and Canada, 28.8 pounds. (See table page 8.)

World trade in apples: Apples entering into foreign trade in the three-year period 1928-29 to 1930-31 averaged roughly 36,000,000 bushels a year. Most of this total was supplied by those countries producing a surplus of apples such as the United States with an average export of 17,200,000 bushels, or 47.8 per cent of the total; Canada with 4,500,000 bushels, or 12.5 per cent; Australia with 3,000,000 bushels, or 8.3 per cent; Italy with 1,700,000 bushels, or 4.7 per cent; Yugoslavia with 1,500,000 bushels, or 4.2 per cent; New Zealand with 1,000,000 bushels, or 2.8 per cent; and Russia with about 600,000 bushels, or 1.7 per cent. This leaves 6,500,000 bushels or 18.0 per cent which is supplied by other countries, mainly certain European countries which export sizable quantities of apples but are also importers of apples. Chief among these, together with their average exports, are Switzerland with 1,200,000 bushels, or 3.3 per cent of the total; Netherlands, 1,060,000 bushels, or 2.9 per cent; Belgium, 875,000 bushels, or 2.4 per cent; France, 660,000 bushels, or 1.8 per cent; Austria, about 500,000 bushels, or 1.4 per cent; and all other countries, 2,200,000 bushels, or 6.1 per cent. (See table page 7.)

The United Kingdom and Germany are by far the most important apple-importing countries. In the three-year period 1928-29 to 1930-31 they took on an average about 72 per cent of the 36,000,000 bushels of apples entering into international trade. Average takings by chief importing countries were as follows: United Kingdom, 14,900,000 bushels, or 41.4 per cent; Germany, 11,000,000 bushels, or 30.6 per cent; France, 2,100,000 bushels, or 5.8 per cent; Sweden, 1,030,000 bushels, or 2.9 per cent; Argentina, 930,000 bushels, or 2.6 per cent; and all other countries, 6,040,000 bushels, or 16.7 per cent. The most important of the latter were the Netherlands, Belgium, Switzerland, Denmark, Norway, Brazil, Austria, Hungary, Cuba, Mexico, and China. (See table page 7.)

APPLES: Production in principal countries for the marketing years, 1926-27 to 1931-32

Country	1926-27	1927-28	1928-29	1929-30	1930-31	1931-32
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
United States a/	246,609	123,693	186,893	135,622	155,982	202,415
United States c/	117,384	78,051	106,383	86,529	101,004	34,492
Russia d/	-	-	-	51,566	-	-
Germany d/	-	-	-	-	45,164	-
France e/	-	10,895	3,767	6,261	4,281	b/ 7,707
Poland f/	35,964	38,078	37,577	-	-	b/ 28,750
Switzerland g/	14,030	14,930	11,275	23,197	b/ 13,853	-
Rumania	-	19,574	13,310	13,628	-	-
England and Wales g/	5,475	6,745	10,793	19,244	12,600	6,077
Canada	8,863	8,432	9,708	11,820	10,234	11,379
Italy	-	-	-	12,980	9,288	b/ 8,300
Australia h/	5,228	11,505	5,519	9,505	b/ 7,628	b/ 7,034
Austria	9,026	7,953	9,890	5,138	9,357	-
Czechoslovakia	7,868	6,009	8,984	3,983	8,126	-
Spain	-	-	8,031	5,416	4,739	-
Yugoslavia	9,782	8,584	5,204	6,935	6,755	-
Japan	4,889	3,584	4,611	4,706	5,038	-
New Zealand h/	1,810	2,399	2,255	2,379	-	-
Chosen	821	939	972	1,505	1,255	b/ 1,890
Mexico	-	815	766	864	879	-
Greece	173	363	92	242	249	-
Luxemburg	46	651	137	602	101	-
Bulgaria	26	98	13	82	65	-

Compiled by Foreign Agricultural Service. Converted to bushels of 44 pounds. a/ Total crop. b/ Preliminary estimate. c/ Commercial crop. d/ No official figures published; production estimated. e/ Dessert apples only. France also produces large quantities of cider apples. The 5-year average, 1926-27 to 1929-30, for cider apples and pears was 117,568,862 bushels, of which apples constituted over one-half. f/ Poland's production has been greatly reduced by the freeze of 1928, and no recent figures have been published. The 1931 estimate reported by Consul Stewart E. McMillin. g/ Includes cider apples. h/ Fiscal years, the crop of 1926-27 is compared with Northern Hemisphere crop of 1926.

APPLES: World trade in fresh apples, 1928-29 to 1930-31, marketing year July - June

Country	1928-29 Imports	1928-29 Exports	1929-30 Imports	1929-30 Exports	1930-31 Imports	1930-31 Exports
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Principal exporting countries						
United States	39	21,042	100	10,279	34	20,341
Canada	190	3,290	160	5,643	170	4,696
Australia a/	-	b/ 1,477	-	b/ 4,318	-	b/ 3,145
New Zealand a/	23	861	33	1,169	30	1,135
Italy	-	1,531	-	1,068	-	2,535
Yugoslavia c/ d/	-	505	6	1,227	2	2,933
Russia	-	772	-	780	-	-
Rumania c/ d/	-	622	-	311	-	262
Japan	-	108	-	96	-	135
Principal exporting and importing coun.						
France d/ e/	1,900	490	1,270	493	3,160	1,000
Switzerland c/ d/	f/ 400	1,625	f/ 500	1,738	f/ 1,000	235
Netherlands d/	797	261	290	2,817	1,288	94
Belgium d/	566	384	210	2,107	1,238	130
Austria c/	-	-	607	23	341	689
Hungary d/	302	327	84	-	276	-
Poland d/	102	30	673	21	475	165
Chile a/	g/	170	g/	146	g/	139
Union of S. Africa a/	42	42	36	32	37	-
Principal importing countries						
United Kingdom	13,381	h/	16,357	h/	14,781	h/
Germany d/	12,149	17	6,728	70	14,176	18
Sweden	1,372	h/	1,128	h/	648	h/
Argentina	i/ 900	g/	i/ 950	g/	i/ 930	g/
Denmark	238	-	285	j/ 45	248	j/ 46
Norway	e/ 180	g/	e/ 200	g/	e/ 150	g/
China c/	243	g/	307	g/	141	g/
Greece c/	33	g/	83	g/	65	g/
Total	32,857	33,560	30,007	32,364	39,190	37,698
Others k/	1,143	440	2,993	636	810	2,302
Approximate world trade	34,000	34,000	33,000	33,000	40,000	40,000

Compiled by the Foreign Agricultural Service from official sources, bushels of 44 pounds. a/ Calendar year. Apple exports from Southern Hemisphere countries are practically all made in the period January to June; consequently the exports have been included in the Northern Hemisphere marketing year in which they are marketed; i.e., 1929 exports have been placed with the 1928-29 marketing year. b/ Exports to Europe only. c/ Calendar year. The exports from these countries are practically all made in the July to December period; consequently 1928 exports are placed with the 1928-29 marketing year.

Notes continued -
d/ Cider and dessert apples. e/ Approximate cider and dessert apple imports and exports. Amount is estimated since cider apples and pears are reported together. f/ Estimated. g/ Not available, but not important. h/ Some reexports. i/ Estimated from United States exports to Argentina also considering other imports. j/ Reexports. k/ Rough estimate for the purpose of securing a total; includes in import column exports of United States apples to importing countries not listed above amounting to 1,086,000 bushels in 1928-29, 802,000 bushels in 1929-30 and 830,000 bushels in 1930-31 and in both columns the estimated imports into and exports from Finland, Latvia, Lithuania, Estonia, Portugal, Spain, Bulgaria and Turkey.

APPLES: Per capita consumption in principal countries, marketing years, 1927-28 to 1930-31

Country	1927-28	1928-29	1929-30	1930-31
	Pounds	Pounds	Pounds	Pounds
United States:				
All apples a/	44.9	63.3	47.8	50.6
Fresh apples b/	27.7	33.9	29.9	31.1
France:				
Table apples b/	-	5.6	7.8	7.6
Cider apples and pears	-	100.5	155.1	62.9
United Kingdom:				
All apples a/	33.3	27.5	34.3	-
Table apples b/	28.7	24.2	31.4	-
Switzerland:				
All apples a/	-	41.3	64.3	16.2
Table apples b/	-	16.2	30.8	12.3
New Zealand c/	41.3	37.4	30.8	-
Australia c/	53.1	28.1	37.8	-
Canada c/	28.0	34.0	27.9	25.2
Germany a/	-	52.8	56.8	48.5
Poland a/	-	54.6	27.9	27.0
Yugoslavia a/	-	15.7	18.9	12.0
Russia a/	-	-	d/ 15.0	-
Italy a/	-	12.2	8.8	6.9
Japan a/	2.4	3.1	3.1	-

Compiled by Foreign Agricultural Service from official sources.
a/ Includes apples used for all purposes. b/ Table and cooking apples. c/ Mostly table and cooking apples. d/ Unofficial estimate.

EXPORTING COUNTRIES

The United States

The apple was the first cultivated tree fruit to be grown in important quantities in the United States and at the present time is still the leading fruit produced in this country. This is because of the hardiness of the apple tree, which permits it to be widely grown, and the popularity and keeping quality of the fruit. In about their order of importance in production, the chief fruits and berries of the United States are apples, oranges, grapes, peaches, plums and prunes, grapefruit, lemons, pears, strawberries, apricots and cherries. According to the 1930 census there were 321,017,000 fruit trees of all kinds in the United States, of which 244,078,000 were bearing trees and 76,939,000 non-bearing trees. The total of 321,017,000 trees was made up of apples 36.2 per cent, peaches 24.6 per cent; plums and prunes 10.6 per cent, oranges 9.9 per cent, pears 6.6 per cent, and all other kinds 12.1 per cent.

Number of apple trees: In 1930 there were 116,304,000 apple trees in the United States, of which 88,849,000 were of bearing age and 27,455,000 non bearing. This compares with a total of 137,997,000 trees in 1925, 151,504,000 trees in 1920 and 217,115,000 trees in 1910. The rapid decline in tree numbers was necessary to compensate for overplanting during the years 1905 to 1912. These heavy plantings resulted in very large crops in 1911, 1912, 1914, and 1915, with the result that prices fell to very low levels. Returns were so low that millions of trees were pulled up or abandoned. Many of these, however, consisted of unsatisfactory varieties, poorly located trees, or trees that were thinned out of growing orchards. From 1910 to 1930 there was a net decrease of 100,811,000 trees, or 46.4 per cent, according to the Bureau of Census figures. (See tables, pages 10,11.) Despite the large abandonment of trees, production has been well maintained. This is due to the shift that has taken place from farms to better located commercial orchards, to the more careful attention which has been given to these orchards, and to the greater bearing capacity of many trees as they approached or reached full bearing age. These adjustments have resulted in a net tree population at the present time that is probably better located for efficient production of apples than at any time during the expansion of the industry. The states with the most trees are: New York with 10,302,000 trees, or 8.9 per cent of the total; Virginia, 9,266,000 trees, or 8.0 per cent; Pennsylvania, 7,860,000 trees, or 6.8 per cent; Ohio, 6,600,000 trees, or 5.7 per cent; Michigan, 6,593,000 trees, or 5.7 per cent; West Virginia, 6,194,000 trees, or 5.3 per cent; Washington, 6,142,000 trees, or 5.3 per cent; Illinois, 5,473,000 trees, or 4.7 per cent; and Missouri with 5,109,000 trees, or 4.4 per cent.

Varieties: Out of 800 standard apple varieties that were classified separately in the 1928 apple-tree survey made by the Bureau of Agricultural Economics, 25 made up 81.5 per cent of the total trees in commercial orchards, 16 constituted 73 per cent, and the leading 10 varieties comprised 60 per cent of the total. In their order of importance these are Delicious, Winesap, Jonathan, Baldwin, Stayman Winesap, Ben Davis, Rome Beauty, York Imperial, and McIntosh. Production of Delicious apples is expected to increase for

UNITED STATES: Number of apple trees, by states 1910, 1920, 1925, 1930

State	1910	1920	1925	1930			
	Total	Total	Total	Total		Bearing age	Not of bearing age
	1,000 trees	1,000 trees	1,000 trees	1,000 trees	Per cent	1,000 trees	1,000 trees
Maine	4,522	3,345	2,877	1,991	1.7	1,732	259
N.Hampshire	1,448	949	857	706	.6	460	246
Vermont	1,403	967	735	871	.7	615	256
Mass.	1,723	2,011	2,159	1,999	1.7	1,302	697
Conn.	1,011	959	997	807	.7	540	267
New York	14,077	12,569	11,891	10,302	8.9	8,285	2,017
New Jersey	1,573	1,961	2,249	2,096	1.8	1,531	565
Penn.	10,502	9,617	8,805	7,860	6.8	6,244	1,616
Ohio	10,943	8,018	7,420	6,600	5.7	4,661	1,939
Indiana	7,727	4,357	3,830	2,925	2.5	2,139	786
Illinois	12,449	6,939	6,766	5,473	4.7	3,718	1,755
Michigan	9,787	7,666	7,416	6,593	5.7	5,200	1,393
Wisconsin	3,839	3,147	2,907	2,436	2.1	1,960	476
Minnesota	2,952	2,233	1,724	1,455	1.3	1,213	242
Iowa	7,761	3,764	2,999	2,311	2.0	1,595	716
Missouri	17,985	6,749	5,432	5,109	4.4	3,047	2,062
Nebraska	3,904	1,363	1,028	916	.8	570	346
Kansas	8,046	2,126	1,807	1,859	1.6	1,060	799
Delaware	694	1,124	1,067	949	.8	793	156
Maryland	1,949	2,418	2,185	1,859	1.6	1,585	274
Virginia	10,440	10,242	10,284	9,266	8.0	7,840	1,426
W. Virginia	7,343	7,290	6,842	6,194	5.3	5,247	947
N. Carolina	6,746	4,869	4,856	4,057	3.5	3,116	941
S. Carolina	851	559	628	444	.4	285	159
Georgia	2,701	2,322	2,097	1,681	1.4	1,199	482
Kentucky	7,645	5,170	4,767	4,246	3.7	2,963	1,283
Tennessee	6,956	4,214	4,063	3,282	2.8	2,359	923
Alabama	2,206	1,467	1,224	972	.8	627	345
Mississippi	853	480	346	267	.2	138	129
Arkansas	11,590	4,952	4,377	3,363	2.9	2,158	1,205
Oklahoma	5,016	1,846	1,354	1,088	.9	700	388
Texas	2,266	704	428	336	.3	204	132
Montana	2,005	1,128	743	414	.4	385	29
Idaho	2,546	2,525	1,888	1,360	1.2	1,250	110
Colorado	3,661	1,961	1,474	1,090	.9	993	97
N. Mexico	1,457	855	677	509	.4	445	64
Utah	1,306	807	663	570	.5	465	105
Washington	7,872	8,720	7,832	6,142	5.3	5,194	948
Oregon	4,270	3,815	3,031	1,860	1.6	1,641	219
California	3,537	4,272	4,427	3,344	2.9	2,870	474
Others	1,553	1,019	845	702	4	520	182
U. S.	217,115	151,504	137,997	116,304	100.0	88,849	27,455

Compiled by Foreign Agricultural Service from reports of the Bureau of the Census.

UNITED STATES: Estimated number of apple trees in commercial orchards, by states and age groups, January 1, 1928

State and geographic division	Age groups and years when planted: 3 years and under 1925-1927	4 to 8 years 1920-1924	9 to 13 years 1915-1919	14 to 23 years 1905-1914	24 to 33 years 1895-1904	34 years and over 1894 and earlier	Total
	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees
Maine	104	245	121	371	403	789	2,024
New Hampshire	44	106	120	137	52	149	608
Vermont	69	70	63	170	6	20	398
Massachusetts	191	394	414	410	111	196	1,716
Rhode Island	7	18	32	44	29	17	147
Connecticut	61	115	104	222	124	56	682
New England	476	948	854	1,354	725	1,218	5,575
New York	889	1,500	839	2,764	1,007	2,044	9,043
New Jersey	68	619	345	496	179	66	1,773
Pennsylvania	433	936	600	1,705	614	404	4,692
Mid. Atlantic	1,390	3,055	1,784	4,965	1,800	2,514	15,508
Delaware	38	120	239	423	58	8	886
Maryland	44	345	277	577	112	43	1,398
Virginia	186	978	911	3,381	1,311	366	7,133
West Virginia	196	760	569	2,151	544	292	4,512
North Carolina	218	389	409	615	343	101	2,075
South Carolina	35	122	21	18	1	1	198
Georgia	27	295	379	174	40	8	923
South Atlantic	744	3,009	2,805	7,339	2,409	819	17,125
Ohio	169	833	1,092	1,103	194	91	3,482
Indiana	124	335	281	321	248	42	1,351
Illinois	381	1,424	823	525	715	195	4,063
Michigan	306	965	545	1,355	688	552	4,411
Wisconsin	95	65	70	325	124	178	857
East North Central	1,075	3,622	2,811	3,629	1,969	1,058	14,164
Minnesota	35	93	99	147	132	-	506
Iowa	186	178	43	234	205	16	862
Missouri	527	938	251	437	743	196	3,092
Nebraska a/	101	58	66	10	37	1	273
Kansas	131	315	186	200	204	24	1,060
West North Central	980	1,582	645	1,028	1,321	237	5,793
Kentucky	210	487	305	471	119	90	1,682
Tennessee	182	550	97	254	239	23	1,345
Alabama	106	71	19	21	23	1	241
East South Central	498	1,108	421	746	381	114	3,268

continued -

UNITED STATES: Estimated number of apple trees in commercial orchards by states and age groups, January 1, 1928, continued

State and geographic division	Age groups and years when planted: 3 years and under 1925-1927	4 to 8 years 1920-1924	9 to 13 years 1915-1919	14 to 23 years 1905-1914	24 to 33 years 1895-1904	34 years and over 1894 and earlier	Total
	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees
Arkansas	315	1,012	257	558	852	48	3,042
Oklahoma	333	241	58	183	12	2	829
West South Central	648	1,253	315	741	864	50	3,871
Montana	20	11	3	406	68	1	509
Idaho	45	122	52	1,097	20	-	1,336
Wyoming	-	1	2	15	-	-	18
Colorado	31	24	53	595	296	67	1,066
New Mexico	20	58	83	254	80	7	502
Arizona	-	23	8	32	2	1	56
Utah	14	40	35	343	39	4	475
Mountain	130	279	236	2,732	505	80	3,962
Washington	318	787	309	4,685	226	43	6,368
Oregon	27	69	105	1,522	169	9	1,901
California b/	91	284	332	1,733	538	292	3,270
Pacific	436	1,140	746	7,940	933	344	11,539
All states	6,377	15,996	10,617	30,474	10,907	c/ 6,434	80,805

Bureau of Agricultural Economics. a/ Figures for Nebraska are for the 7 counties of Richardson, Nemaha, Otee, Cass, Sarpy, Douglas and Washington. b/ Figures for California are for the three commercial apple districts of Watsonville, Sebastopol and Yucaipa. c/ Does not include trees for New England and New Jersey.

UNITED STATES: Estimated number of apple trees of 16 imported varieties in commercial orchards, by important states, January 1, 1928

Varieties	New York	Virginia	Washington	Pennsylvania	Michigan	Missouri	Other states	Total	Per cent of total
	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	Per cent
Delicious	234	548	1,269	303	357	286	3,829	6,826	8.4
Winesap	-	1,743	1,969	61	14	150	2,680	6,617	8.2
Jonathan	79	118	1,034	152	423	644	3,884	6,334	7.8
Baldwin	2,383	10	15	431	344	-	2,336	5,519	6.8

continued -

UNITED STATES: Estimated number of apple trees of 16 imported varieties in commercial orchards, by important states, January 1, 1928, cont'd

Varieties	New York	Virginia	Washington	Pennsylvania	Michigan	Missouri	Other states	Total	Per cent of total
	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	Per cent
Stayman Winesap	26	852	186	882	54	146	2,930	5,076	6.3
Ben Davis	385	366	13	80	93	463	3,129	4,529	5.6
Rome Beauty	183	102	734	232	11	18	2,900	4,180	5.2
York Imperial	-	1,486	-	578	11	138	1,391	3,604	4.5
McIntosh	1,264	10	8	127	224	-	1,707	3,340	4.1
Grimes Golden	8	181	19	152	131	197	1,777	2,465	3.1
Yellow Newtown	19	358	252	3	-	-	1,694	2,326	2.9
Wealthy	519	9	-	110	263	21	1,151	2,073	2.6
Yellow Transparent	42	81	15	65	73	34	1,553	1,863	2.3
Rhode Island Greening	1,097	-	-	69	120	-	165	1,451	1.8
Northern Spy	527	-	18	151	424	-	275	1,395	1.7
Gravenstein	26	-	46	-	-	-	1,213	1,285	1.6
Others	2,251	1,269	790	1,296	1,869	995	13,452	21,922	27.1
Total	9,043	7,133	6,368	4,692	4,411	3,092	46,066	80,805	100.0

Bureau of Agricultural Economics. Preliminary estimates.

UNITED STATES: Estimated number of apple trees of 16 important varieties in commercial orchards, by geographical divisions, January 1, 1928

Varieties	New England	Middle Atlantic	South Atlantic	North Central	South Central	Mountain	Pacific	Total all states
	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees	1,000 trees
Delicious	239	707	1,497	1,676	836	322	1,549	6,826
Winesap	6	147	2,205	1,067	714	286	2,192	6,617
Jonathan	1	263	388	2,755	586	1,069	1,272	6,334
Baldwin	1,909	2,876	71	647	-	1	15	5,519
Stayman Winesap	-	1,155	2,069	1,118	470	66	198	5,076
Ben Davis	335	510	889	1,439	1,153	190	13	4,529
Rome Beauty	3	527	726	990	230	525	1,179	4,180
York Imperial	-	578	2,501	356	116	53	-	3,604
McIntosh	1,053	1,456	36	334	-	453	8	3,340
Grimes Golden	-	242	696	1,188	217	77	45	2,465
Yellow Newtown	-	22	374	-	-	36	1,874	2,326
Wealthy	290	814	55	869	7	38	-	2,073
Yellow Transparent	32	189	474	798	346	9	15	1,863
Rhode Island Greening	141	1,166	-	131	10	3	-	1,451
Northern Spy	220	678	15	442	-	3	37	1,395
Gravenstein	146	55	5	-	-	-	1,079	1,285
Others	1,200	4,123	5,124	6,147	2,454	831	2,043	21,922
Total	5,575	15,508	17,125	19,957	7,139	3,962	11,539	80,805

Bureau of Agricultural Economics. Preliminary estimates. For information on the compilation of these data see Yearbook of Agriculture for 1931 page 721.

UNITED STATES: Total apple production, barreled states and boxed states, 1889-90 to 1931-32, and total commercial production, barreled states and boxed states, 1916-17 to 1931-32

Marketing year	Total production			Commercial production a/		
	United States	Barreled states b/	Boxed states c/	United States	Barreled states b/	Boxed states c/
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
1889-90	143,105	139,826	3,279	a/	a/	a/
1890-91	80,142	76,176	3,966	a/	a/	a/
1891-92	198,907	193,590	5,317	a/	a/	a/
1892-93	120,536	116,186	4,350	a/	a/	a/
1893-94	114,773	108,740	6,033	a/	a/	a/
Average	131,493	126,904	4,589	a/	a/	a/
1894-95	134,648	128,628	6,020	a/	a/	a/
1895-96	219,600	212,563	7,037	a/	a/	a/
1896-97	232,600	227,667	4,933	a/	a/	a/
1897-98	163,728	154,255	9,473	a/	a/	a/
1898-99	118,061	109,131	8,930	a/	a/	a/
Average	173,727	166,449	7,278	a/	a/	a/
1899-1900	175,397	169,423	5,974	a/	a/	a/
1900-01	205,930	196,590	9,340	a/	a/	a/
1901-02	135,500	126,550	8,950	a/	a/	a/
1902-03	212,330	201,030	11,300	a/	a/	a/
1903-04	195,680	184,240	11,440	a/	a/	a/
Average	184,967	175,566	9,401	a/	a/	a/
1904-05	233,630	220,660	12,970	a/	a/	a/
1905-06	136,220	124,750	11,470	a/	a/	a/
1906-07	216,720	202,230	14,490	a/	a/	a/
1907-08	119,560	107,630	11,930	a/	a/	a/
1908-09	148,940	134,700	14,240	a/	a/	a/
Average	171,014	157,994	13,020	a/	a/	a/
1909-10	145,412	130,156	15,256	a/	a/	a/
1910-11	141,640	123,250	18,390	a/	a/	a/
1911-12	214,020	198,150	15,870	a/	a/	a/
1912-13	235,220	210,220	25,000	a/	a/	a/
1913-14	145,410	124,930	20,480	a/	a/	a/
Average	176,340	157,341	18,999	a/	a/	a/
1914-15	253,200	226,200	27,000	a/	a/	a/
1915-16	230,011	208,566	21,445	a/	a/	a/
1916-17	193,905	160,719	33,186	80,241	56,442	23,799
1917-18	166,749	126,789	39,960	67,023	41,433	25,590
1918-19	169,625	137,295	32,330	74,229	52,920	21,309
Average	202,698	171,914	30,784	73,830	50,265	23,565
1919-20	142,086	91,534	50,552	78,477	42,177	36,300
1920-21	223,677	183,310	40,367	101,715	72,525	29,190
1921-22	99,002	46,488	52,514	64,671	22,695	41,976
1922-23	202,702	152,030	50,672	95,835	57,867	37,968
1923-24	202,842	139,004	63,838	107,808	58,092	49,716
Average	174,062	122,473	51,589	89,700	50,670	39,030
1924-25	171,725	127,230	44,495	84,039	50,868	33,171
1925-26	172,389	119,596	52,793	99,738	56,697	43,041
1926-27	246,609	183,974	62,550	117,384	72,936	44,448
1927-28	123,693	76,449	47,244	78,051	39,444	38,607
1928-29	186,893	121,921	64,972	106,383	55,371	51,012
Average	180,262	125,834	54,411	97,119	55,062	42,057

cont'd

UNITED STATES: Total apple production, barreled states and boxed states, 1889-90 to 1931-32, and total commercial production, barreled states and boxed states, 1916-17 to 1931-32 continued

Marketing year	Total production			Commercial production a/		
	United States	Barreled states b/	Boxed states c/	United States	Barreled states b/	Boxed states c/
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
1929-30 d/	135,622	84,309	51,313	86,529	46,782	39,747
1930-31 d/	155,982	91,802	64,180	101,004	49,089	51,915
1931-32 e/	202,415	148,696	53,719	103,476	64,278	39,198
1932-33 e/	136,496	82,098	54,398	85,000	42,600	42,400

Statistics and charts of the apple industry, compiled by W. H. Youngman and Yearbook of Agriculture. a/ Portion of the total crop which is sold for consumption as fresh fruit. Three bushels or three boxes is equivalent to one barrel of apples. b/ States east of the Rocky Mountains. c/ States west of the Rocky Mountains. d/ December estimate, Division of Crop and Livestock Estimates. e/ August preliminary estimate.

UNITED STATES: Total carlot shipment of apples by months, 1926-27 to 1930-31

Months	1926-27	1927-28	1928-29	1929-30	1930-31	Average 1926-27 to 1930-31	1931-32
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
June a/	260	253	230	514	420	335	400
July	3,840	1,815	3,452	2,022	3,327	2,891	3,149
August	3,388	3,539	4,335	3,791	2,930	3,597	1,981
September	21,022	12,106	19,405	13,996	13,359	15,978	13,011
October	45,438	33,556	45,901	37,689	36,852	39,887	30,910
November	23,349	17,109	19,775	14,648	17,751	18,526	14,620
December	8,375	5,963	8,309	5,982	8,235	7,373	7,339
January	7,997	5,315	7,771	6,223	7,948	7,051	8,252
February	8,014	4,900	7,741	6,397	7,236	6,858	8,291
March	5,370	3,500	5,382	5,217	5,753	5,044	6,445
April	3,620	2,355	2,918	3,662	3,096	3,130	3,714
May	2,350	1,819	1,710	1,974	2,066	1,984	2,416
June a/	950	864	1,048	686	819	873	1,145
Total	133,973	93,094	127,977	102,801	109,792	113,527	101,673

Compiled by Foreign Agricultural Service from records of the Division of Fruits and Vegetables. a/ Thirteen-month season. The new crop starts in June, but some of the old crop is still moving to market in June, so the two crops overlap and June must be included twice in the season.

UNITED STATES: Commercial apple crops by principal states, marketing years, 1924-25 to 1930-31 a/

State	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1931-32	Average 1925-26 to 1931-32	Per cent total
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Per cent
Boxed area b/									
Wash.	26,010	25,950	22,302	30,000	24,687	33,597	25,893	26,820	27.1
Calif.	3,291	6,144	4,656	6,861	4,413	6,522	4,647	5,220	5.3
Oregon	3,888	5,250	2,925	5,100	2,250	4,470	2,079	3,711	3.7
Total Pacific Coast states	33,189	37,344	29,883	41,961	31,350	44,589	32,619	35,751	36.1
Idaho	5,250	2,775	5,478	4,800	4,680	4,650	3,969	4,515	4.6
Colorado	2,850	2,907	2,253	2,700	2,160	1,005	1,500	2,196	2.2
Other mountain states	1,752	1,422	993	1,551	1,557	1,671	1,110	1,422	1.4
Total mountain states	9,852	7,104	8,724	9,051	8,397	7,326	6,579	8,133	8.2
Total boxed area	43,041	44,448	38,607	51,012	39,747	51,915	39,198	43,884	44.3
Barreled area									
New York	18,750	18,000	8,163	12,690	10,212	16,125	11,700	13,662	13.8
Virginia	4,320	11,100	4,950	11,100	9,300	4,350	10,500	7,944	8.0
W. Virginia	2,247	5,100	4,050	4,410	4,200	2,040	5,100	3,834	3.9
Pennsylvania	3,033	5,388	2,550	3,129	2,550	3,873	5,514	3,720	3.7
New Jersey	1,821	2,832	1,833	2,238	1,449	2,910	2,130	2,184	2.2
Delaware	1,140	1,980	900	1,290	819	1,401	1,200	1,248	1.3
Maryland	972	1,800	1,200	1,326	1,365	990	1,950	1,341	1.4
Other Atlantic states	660	1,491	513	1,101	666	627	1,140	885	.9
Total Atlantic states	32,943	47,691	24,159	37,284	30,561	32,316	39,234	34,818	35.2
Michigan	5,100	5,467	2,271	2,787	3,618	3,135	5,100	3,777	3.8
Illinois	3,645	3,870	2,250	3,720	2,400	2,808	5,400	3,456	3.5
Missouri	1,938	1,857	870	1,422	1,140	840	2,250	1,476	1.5
Ohio	2,034	3,018	1,623	1,647	741	1,050	4,056	2,025	2.0
Other central states	2,475	3,060	2,541	2,079	2,115	1,236	3,222	2,418	2.4
Total N. Central states	15,192	16,272	9,555	11,655	10,014	9,078	20,028	13,152	13.2
Arkansas	1,950	1,500	609	1,242	660	780	1,173	1,314	1.3
Other central states	420	969	216	753	363	231	918	555	.6
Total S. Central states	2,370	2,469	825	1,995	1,023	1,011	2,091	1,869	1.9
Maine	1,935	1,350	1,365	861	1,800	1,410	690	1,359	1.4
Mass.	1,965	2,640	1,590	1,734	1,557	2,808	1,098	1,914	1.9
Other N.E. states	2,292	2,514	1,950	1,842	1,827	2,466	1,137	2,046	2.1
Total N. England states	6,192	6,504	4,905	4,437	5,184	6,684	2,925	5,319	5.4

continued -

UNITED STATES: Commercial apple crops by principal states, marketing years, 1924-25 to 1930-31 a/ continued

State	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1931-32	Average 1925-26 to 1931-32	Per cent total
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Per cent
Total Barreled area	56,697	72,936	39,444	55,371	46,782	49,089	64,278	55,158	55.7
Total United States	99,738	117,384	78,051	106,383	86,529	101,004	103,476	99,042	100.0

Yearbook of Agriculture, 1931 and December 1931 crop report. Compiled by Foreign Agricultural Service.

a/ The commercial apple crop is the portion of the total crop sold for consumption as fresh fruit. b/ Three boxes or three bushels are considered as equal to one barrel. c/ Includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

UNITED STATES: Carlot shipments of apples by principal states by crop years 1926-27 to 1930-31, and average shipments during this period a/

State	1926-27	1927-28	1928-29	1929-30	1930-31	Average 1926-27 to 1930-31	1931-32
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Washington	34,729	30,280	41,317	34,220	45,220	37,153	34,566
Oregon	6,423	3,396	6,447	2,680	5,620	4,913	2,137
California	5,082	4,020	6,300	3,462	5,953	4,963	3,847
Idaho	3,676	7,709	6,508	7,119	6,972	6,397	5,351
Colorado	2,877	2,228	2,804	2,322	1,082	2,263	1,093
Other Western	1,582	1,046	1,446	1,559	1,690	1,465	
Total Western	54,369	48,679	64,822	51,362	66,537	57,154	47,529
New York	21,641	10,030	13,671	9,253	15,428	14,005	9,035
Pennsylvania	4,986	3,005	2,796	2,401	2,765	3,191	3,309
Illinois	6,126	2,552	5,046	2,326	3,388	3,888	4,780
Michigan	4,329	2,002	2,651	4,053	1,884	2,984	2,818
Ohio	1,733	837	1,547	438	196	950	1,642
Virginia	19,201	8,686	20,282	16,705	7,403	14,455	17,175
West Virginia	7,395	7,054	6,608	7,385	3,381	6,365	6,987
Delaware	2,099	1,352	1,352	820	1,353	1,395	724
Maryland	2,491	1,792	1,722	1,852	1,378	1,847	301
Missouri	1,992	736	1,758	758	541	1,157	1,292
Arkansas	1,839	629	1,265	417	331	896	331
Others	7,354	6,786	5,456	6,590	6,897	6,616	
Total	133,973	93,094	127,530	102,801	109,792	113,438	101,673

Compiled by Foreign Agricultural Service from records of the Division of Fruits and Vegetables. Crop season extends from June 1 of one year through June of the following year. a/ These figures do not include the shipments of apples by truck which practice has been increasing in recent years.

several years, since 73 per cent of the trees of this variety were under 14 years of age in 1928. About 60 per cent of the McIntosh and Stayman Winesap trees and 43 per cent of the Winesap, Jonathan, and Grimes Golden were under 14 years of age, so increases are expected also of these varieties. Plantings of Baldwin, Rome Beauty, York Imperial, and many less important varieties have been light in recent years. Ben Davis plantings have declined for several years. (See tables, pages 12, 13.)

Production: The Census places the total production of fruits and berries in the United States in 1929 at approximately 444,500,000 bushels compared with 359,200,000 bushels in 1919. The increase is mostly accounted for by the growth in the citrus, grape, and strawberry crops. Apple production has been declining during this period. In the five-years 1899-1893 the total apple production averaged 131,500,000 bushels and in the period 1899 to 1903 185,000,000 bushels. This figure was not exceeded until the five-years 1914 to 1918, when the average reached 203,000,000 bushels. Since that time the trend in total production has been slightly downward. However, the commercial production, or that portion of the crop which is sold for consumption as fresh fruit, continued to increase until 1926. In the five-year period 1927 to 1931 the commercial crops have averaged somewhat larger than in the five years previous to 1926. (See table, pages 14, 15.) The total production of apples in the United States during the ten years 1922-1931 averaged 180,000,000 bushels, of which 54 per cent or 98,000,000 bushels (32,700,000 barrels) constituted the commercial crop. During these years total production varied from 124,000,000 to 247,000,000 bushels, or almost 100 per cent.

The United States apple crop is usually considered as being composed of two parts; i.e., barreled or basketed apples and boxed apples. The barreled apples are produced in the states east of the Rocky Mountains and the boxed apples in those states west of this range. The most important barreled states of the Atlantic States are New York, Virginia, West Virginia, and Pennsylvania; of the New England States, Maine and Massachusetts; and of the Central States, Michigan, Illinois, Missouri, Ohio and Arkansas. The boxed area comprises the Pacific Coast States of Washington, California and Oregon; and the Mountain States, the most important of which are Idaho and Colorado. The plantings in the barreled apple states for the most part are much older than those of the boxed states. The production in the former as a whole has been declining for 15 years or more, whereas the production in the boxed apple states appears to be still increasing, but at a decreasing rate. In the last ten years 1922-1931 the barreled states have supplied about 69 per cent of the total apple crop and the boxed states 31 per cent. The proportions become 56 per cent and 44 per cent, respectively, when the commercial crop is used. This alteration is accounted for by the larger share of the boxed apple crop which is sold for fresh consumption. During the decade under survey it was considered that 44 per cent of the total barreled crop and 77 per cent of the total boxed crop constituted the commercial production.

In the seven-year period 1925-1931 the commercial apple production of the United States has averaged 99,042,000 bushels, of which the State of Washington produced on an average 26,820,000 bushels or 27.1 per cent of the total; New York, 13,662,000 bushels, or 13.8 per cent; Virginia, 7,944,000

bushels or 8.0 per cent; California, 5,220,000 bushels, or 5.3 per cent; Idaho, 4,515,000 bushels, or 4.6 per cent; West Virginia, 3,834,000 bushels, or 3.9 per cent; Michigan, 3,777,000 bushels, or 3.8 per cent; Pennsylvania, 3,720,000 bushels, or 3.7 per cent; and Oregon, 3,711,000 bushels, or 3.7 per cent. Together these eleven states produce 70 per cent of the total commercial apple crop of the United States. (See tables, pages 16, 17.)

Consumption: The consumption of apples for all purposes in the United States has declined from over 100 pounds per capita in 1890 and 1900 to an average of about 60 pounds in the last five years. This decline is due to the fact that, although production has increased, especially commercial production, exports of fresh, dried, and canned apples and population have increased more rapidly than production. On the other hand, the decline in apples used for consumption as fresh fruit has not been nearly so great, probably not over 20 per cent, between 1900 and 1931. This is accounted for by the improvement in the quality and pack of apples during the last thirty years and to the widespread use of cold storage. The per capita consumption of dessert and cooking apples in the United States averaged 32.4 pounds in the five-year period 1926-27 to 1930-31. (See table, page 20.)

Cold-storage holdings: The use of cold storage to prolong the marketing season of apples has increased rapidly in the last fifteen years. In the five-year period 1915-16 to 1919-20 an average of about 20.4 per cent of the commercial apple crop was in storage on December 1; during the next five-year period 1920-21 to 1924-25 the ratio had increased to 24.2 per cent; by the five-year period 1925-26 to 1929-30 the proportion had grown to 29.2 per cent; and in 1930 and 1931 the per cent of the commercial crop stored on December 1 exceeded 32 per cent. The quantity of fruit cold-storaged in both of these years has been twice as large as the average on the same date in the five-year period 1915-16 to 1919-20. The use of cold storage has increased both for barreled and boxed apples but the latter has shown the greater growth. The increase in the use of the bushel basket as a container in the barreled-apple area has resulted in more baskets of apples being recorded as in storage on December 1 in 1930 and 1931 than barrels. (See table, pages 21, 22.)

Exports: Apples have been exported from the United States for over 150 years. In the 1790's, shipments amounted to several thousand barrels a year. They increased slowly, and in the 1860-61 season exports reached 112,000 barrels or 336,000 bushels. Twenty years later, in 1880-81 the total was 1,117,000 barrels (3,351,000 bushels) which mark was not eclipsed until 1896-97 when exports were 1,504,000 barrels or 4,512,000 bushels. In 1903-04, 1912-13, and 1914-15 they exceeded 2,000,000 barrels (6,000,000 bushels), but it was not until 1923-24, when boxed apple exports started to move out in volume, that exports began to assume something of their present importance. In that year, the combined boxed and barreled exports reached 12,294,000 bushels. Owing to the record apple crop in 1926, exports during the 1926-27 season were larger than in any other year, reaching a total of 21,291,000 bushels. In the 1928-29 season exports were almost as large, amounting to 21,042,000 bushels, and again in 1930-31 they reached 20,340,000 bushels. (See table, pages 22, 23.)

UNITED STATES: Per capita consumption of apples for all purposes and for fresh consumption only, marketing years 1889-90, 1899-1900, 1909-10, and yearly 1916-17 to 1930-31

Marketing year July to June	Production		Net exports		Domestic supply		Per capita consumption	
	Total a/	Commercial b/	Fresh fruit b/	Dried in terms of fresh b/	Total c/	For use fresh d/	All apples e/	Fresh apples e/
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Pounds	Pounds
1889-90	143,106	f/57,242	1,362	2,172	139,572	55,881	106.4	g/ 42.6
1899-1900	175,398	f/70,158	1,500	3,642	170,256	68,655	107.5	g/ 43.4
1909-10	145,413	f/58,164	2,697	2,586	140,130	55,467	73.1	g/ 28.9
1916-17	193,905	80,241	5,202	1,077	139,572	75,039	88.7	35.5
1917-18	166,749	67,023	1,860	270	170,256	65,163	76.7	30.4
1918-19	169,626	74,229	4,680	1,968	162,978	69,549	75.0	32.0
1919-20	142,086	78,477	2,403	1,131	138,552	76,074	62.9	34.5
1920-21	223,677	101,715	7,902	1,830	213,945	93,813	95.6	41.9
Average	179,208	80,337	4,410	1,254	173,544	75,310	79.8	34.9
1921-22	99,003	64,671	2,070	1,152	95,781	62,601	42.1	27.5
1922-23	202,701	95,835	5,094	1,320	196,287	90,741	85.0	39.3
1923-24	202,842	107,808	12,165	3,168	187,509	95,646	80.0	40.8
1924-25	171,726	84,039	9,498	h/ 2,565	159,663	74,541	67.1	31.3
1925-26	172,389	99,738	10,941	h/ 3,123	158,325	88,797	65.5	36.8
Average	169,731	90,417	7,953	h/ 2,265	159,513	82,464	68.0	35.1
1926-27	246,525	117,384	21,213	h/ 4,074	221,238	96,174	90.3	39.2
1927-28	123,693	78,051	9,276	h/ 2,832	111,585	68,775	44.9	27.7
1928-29	186,894	106,383	20,925	h/ 6,369	159,600	85,458	63.3	33.9
1929-30	135,621	86,529	9,978	h/ 3,303	122,340	76,551	47.8	29.9
1930-31	155,982	101,004	20,238	h/ 4,611	131,133	80,766	50.6	31.1
Average	169,743	97,869	16,326	h/ 4,239	149,178	81,543	59.2	32.4

Compiled by the Foreign Agricultural Service. a/ Yearbook of Agriculture. b/ Foreign Trade of the United States, Annual, 1790-1929, Report F.S. 48, by Caroline G. Gries. c/ Calculated by deducting fresh, dried and canned net exports from the total production. d/ Calculated by deducting fresh exports from the commercial production. e/ Population from Census reports for 1890, 1900, 1910, 1920, and 1930, intervening years estimated at a constant rate of growth. f/ Estimated from total production. During the sixteen years, 1916 to 1931, the commercial crop averaged 51.6 per cent of the total crop. Since there was considerable upward trend in the proportion of commercial to the total crop, the commercial crops for 1889, 1899 and 1909 were estimated at 40 per cent of the total crops in those years. g/ Estimated see previous note. h/ Includes exports of canned apples and apple sauce. Prior to 1924 these products were not separately reported in commerce returns. In the seven years 1924-25 to 1930-31 the exports of canned apples and apple sauce in terms of fresh apples averaged 237,000 barrels. This quantity is not large enough to appreciably affect the per capita consumption in the years when canned exports were not available.

UNITED STATES: Monthly cold-storage holdings of apples by containers, the total holdings and the per cent of the commercial crop in storage on December 1, five-year averages, 1915-16 to 1919-20, 1920-21 to 1924-25 and 1925-26 to 1929-30 and monthly 1930-31 and 1931-32

Month	Average 1915-16 to 1919-20	Average 1920-21 to 1924-25	Average 1925-26 to 1929-30	1930-31	1931-32
	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels
Barreled apples					
October 1	165	661	641	500	398
November 1	2,841	3,374	2,794	1,571	2,285
December 1	3,436	3,917	3,168	1,456	2,177
January 1	2,890	3,436	2,749	1,197	1,944
February 1	2,293	2,682	2,119	834	1,322
March 1	1,605	1,917	1,462	482	762
April 1	955	1,120	845	200	369
May 1	434	565	415	86	165
June 1	127	198	155	38	63
Per cent of commercial barreled crop December 1	Per cent a/ 21.4	Per cent a/ 28.3	Per cent a/ 25.2	Per cent a/ 23.0	Per cent a/ 26.4
	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes
Boxed apples					
October 1	88	646	1,340	2,135	3,203
November 1	2,590	5,202	10,228	15,669	15,472
December 1	4,977	9,797	14,847	21,267	16,849
January 1	5,349	9,986	13,291	19,137	14,617
February 1	4,644	8,272	10,558	15,347	11,761
March 1	3,254	6,170	7,499	11,371	8,789
April 1	1,916	4,050	4,920	6,852	5,886
May 1	923	2,055	3,553	3,683	3,392
June 1	259	710	887	1,425	1,362
Per cent of commercial boxed crop December 1	Per cent 18.6	Per cent 25.5	Per cent 27.4	Per cent 55.4	Per cent 32.5
	1,000 baskets	1,000 baskets	1,000 baskets	1,000 baskets	1,000 baskets
Basketed apples					
October 1	b/	c/	894	1,982	2,032
November 1	b/	c/	3,782	6,748	9,787
December 1	b/	c/	4,141	6,946	10,817
January 1	b/	c/	3,500	5,996	9,681
February 1	b/	c/	2,647	4,469	7,694
March 1	b/	c/	1,848	2,855	5,182
April 1	b/	c/	1,077	1,300	2,737
May 1	b/	c/	535	571	1,269
June 1	b/	c/	215	193	467

continued -

UNITED STATES: Monthly cold-storage holdings of apples by containers, the total holdings and the per cent of the commercial crop in storage on December 1, five-year averages, 1915-16 to 1919-20, 1920-21 to 1924-25 and 1925-26 to 1929-30 and monthly 1930-31 and 1931-32, continued

Month	Average 1915-16 to 1919-20	Average 1920-21 to 1924-25	Average 1925-26 to 1929-30	1930-31	1931-32
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Total (All containers)					
October 1	582	2,721	4,158	5,616	6,429
November 1	11,112	15,786	23,392	27,129	32,115
December 1	15,285	22,104	28,491	32,580	34,197
January 1	14,019	20,799	25,038	28,725	30,129
February 1	11,523	16,722	19,560	22,317	23,421
March 1	8,070	12,207	13,734	15,672	16,257
April 1	4,779	7,569	8,535	8,781	9,729
May 1	2,223	3,813	4,335	4,512	5,157
June 1	639	1,323	1,566	1,731	2,019
Per cent of total commercial crop	Per cent 20.4	Per cent 24.2	Per cent 29.2	Per cent 32.3	Per cent 32.8

Compiled by the Foreign Agricultural Service from reports of the Cold Storage Section of the Bureau of Agricultural Economics.
a/ Includes baskets. b/ Not available. c/ Baskets not reported separately until October 1, 1923.

UNITED STATES: Exports of apples from the United States and Canada in boxes and barrels and the total in terms of barrels, 1889-90 to 1930-31

Year	Exports from U. S. a/			Exports from Canada b/			Combined exports		
	Barrels	Boxes	Total in terms bushels	Barrels	Boxes	Total in terms bushels	Barrels	Boxes	Total in terms bushels
	1,000 barrels	1,000 boxes	1,000 bushels	1,000 barrels	1,000 boxes	1,000 bushels	1,000 barrels	1,000 boxes	1,000 bushels
1889-90	462	c/	1,386	216	c/	648	678	c/	2,034
1890-91	180	c/	540	271	c/	813	451	c/	1,353
1891-92	1,043	c/	3,129	408	c/	1,224	1,451	c/	4,353
1892-93	658	c/	1,974	546	c/	1,638	1,204	c/	3,612
1893-94	84	c/	252	91	c/	273	175	c/	525
Average	485	c/	1,455	307	c/	921	792	c/	2,376
1894-95	900	c/	2,700	538	c/	1,614	1,438	c/	4,314
1895-96	457	14	1,386	294	1	882	751	16	2,268
1896-97	1,810	c/	5,430	1,110	c/	3,330	2,920	c/	8,760
1897-98	669	c/	2,007	245	c/	735	914	c/	2,742
1898-99	540	181	1,800	682	1	2,046	1,221	182	3,846
Average	875	39	2,664	574	1	1,722	1,449	39	4,386

continued -

UNITED STATES: Exports of apples from the United States and Canada in boxes and barrels and the total in terms of barrels, 1889-90 to 1930-31, continued

Year	Exports from U. S. a/			Exports from Canada b/			Combined exports		
	Barrels	Boxes	Total in terms bushels	Barrels	Boxes	Total in terms bushels	Barrels	Boxes	Total in terms bushels
	1,000 barrels	1,000 boxes	1,000 bushels	1,000 barrels	1,000 boxes	1,000 bushels	1,000 barrels	1,000 boxes	1,000 bushels
1899-1900	647	149	2,091	646	c/	1,938	1,293	149	4,029
1900-01	808	203	2,628	470	c/	1,410	1,278	203	4,038
1901-02	398	296	1,491	394	c/	1,182	792	296	2,673
1902-03	1,910	213	5,943	633	c/	1,899	2,543	213	7,842
1903-04	2,179	389	6,927	1,327	c/	3,981	3,506	389	10,908
Average	1,188	250	3,816	694	c/	2,082	1,882	250	5,898
1904-05	1,664	67	5,058	747	21	2,262	2,412	88	7,320
1905-06	1,298	416	4,311	888	c/	2,664	2,186	416	6,975
1906-07	1,565	252	4,947	742	c/	2,226	2,307	252	7,173
1907-08	1,341	285	4,308	1,129	c/	3,387	2,469	285	7,695
1908-09	659	521	2,499	914	c/	2,742	1,573	521	5,241
Average	1,305	308	4,225	884	4	2,656	2,189	312	6,881
1909-10	943	460	3,288	1,270	c/	3,810	2,212	460	7,098
1910-11	1,250	1,107	4,857	384	c/	1,152	1,634	1,107	6,009
1911-12	1,254	587	4,350	1,542	c/	4,626	2,796	587	8,976
1912-13	1,815	1,454	6,900	1,146	c/	3,438	2,961	1,454	10,338
1913-14	996	867	3,855	780	c/	2,340	1,776	867	6,195
Average	1,251	895	4,650	1,024	c/	3,073	2,276	895	7,723
1914-15	1,674	1,423	6,444	994	c/	2,982	2,668	1,423	9,426
1915-16	902	828	3,534	535	c/	1,605	1,438	828	5,139
1916-17	d/	d/	d/	d/	d/	d/	d/	d/	2,991
1917-18	c/	c/	c/	c/	c/	c/	c/	c/	c/
1918-19	d/	d/	d/	d/	d/	d/	d/	d/	4,251
Average	d/	d/	d/	d/	d/	d/	d/	d/	4,361
1919-20	439	1,664	2,979	533	176	1,776	972	1,840	4,755
1920-21	1,299	2,445	6,342	1,147	277	3,717	2,446	2,722	10,059
1921-22	83	2,228	2,478	1,157	382	3,852	1,240	2,610	6,330
1922-23	488	2,715	4,179	1,194	530	4,113	1,682	3,245	8,292
1923-24	1,881	4,889	10,533	1,323	559	4,530	3,204	5,449	15,063
Average	838	2,788	5,302	1,071	385	3,598	1,909	3,173	8,900
1924-25	1,410	4,139	8,370	1,201	508	4,113	2,612	4,647	12,483
1925-26	1,754	4,296	9,558	1,140	759	4,179	2,894	5,055	13,737
1926-27	4,216	6,384	19,032	836	1,190	3,699	5,052	7,574	22,731
1927-28	1,287	4,346	8,208	674	605	2,628	1,962	4,951	10,836
1928-29	2,869	10,578	19,185	753	1,223	3,483	3,623	11,801	22,668
Average	2,307	5,949	12,871	921	857	3,620	3,228	6,806	16,491
1929-30	1,311	4,927	8,859	1,516	856	5,406	2,827	5,783	14,265
1930-31	2,628	10,854	18,738	1,091	1,441	4,713	3,718	12,295	23,451

International Apple Association. a/ Does not include exports to Canada. b/ Does not include exports to the United States. c/ None exported. d/ Details not available on account of war conditions.
(Three boxes or three bushels are taken as the equivalent of one barrel.)

UNITED STATES: Barreled apple exports by months, 1926-27 to 1931-32 and the average for the period

Month	1926-27	1927-28	1928-29	1929-30	1930-31	Average 1926-27 to 1930-31	1931-32 a/
	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels
July	8.0	14.3	11.7	25.4	14.4	14.7	22.3
August	31.7	48.6	40.9	33.1	9.6	32.8	19.1
September	367.8	143.3	78.7	124.8	123.5	167.6	295.9
October	497.8	353.9	632.1	423.3	481.3	477.7	612.0
November	1,192.6	382.9	544.6	274.2	686.6	616.2	631.6
December	474.1	188.4	303.4	193.3	422.6	316.3	284.7
January	642.6	123.0	458.2	160.2	299.6	336.7	389.0
February	451.7	52.9	377.9	77.4	225.9	237.2	357.7
March	481.9	29.3	373.3	90.0	178.4	230.6	196.5
April	250.8	7.3	124.4	22.0	31.8	87.3	32.5
May	63.9	4.5	13.2	2.5	4.3	17.7	11.0
June	19.8	.2	46.9	.9	.6	13.7	3.1
Total	4,482.7	1,348.5	3,005.3	1,427.0	2,478.8	2,548.5	2,855.3

Compiled by the Foreign Agricultural Service from official records of the Bureau of Foreign and Domestic Commerce.

a/ Since January baskets have been reported separately. These have been included with the barrels.

UNITED STATES: Boxed apple exports by months, 1926-27 to 1931-32 and the average for the period

Month	1926-27	1927-28	1928-29	1929-30	1930-31	Average 1926-27 to 1930-31	1931-32
	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes
July	201.6	101.3	235.6	91.0	233.0	172.5	421.4
August	272.8	378.3	411.2	261.5	417.9	348.3	496.3
September	546.2	248.0	347.5	241.7	509.4	378.6	513.7
October	1,256.1	836.2	2,353.1	771.8	1,548.0	1,353.0	1,108.5
November	1,589.7	1,136.8	1,821.2	1,324.6	2,431.8	1,660.8	1,111.3
December	1,056.5	785.5	1,082.3	926.5	2,116.4	1,205.4	667.5
January	854.2	841.8	1,790.6	827.8	1,488.4	1,160.6	1,541.3
February	1,054.7	504.4	1,598.5	714.6	1,459.4	1,066.3	1,595.0
March	497.4	335.6	1,466.1	473.4	1,819.6	918.4	994.0
April	326.9	93.7	727.7	160.5	607.0	383.2	400.1
May	125.1	74.5	92.2	109.9	209.2	122.2	350.3
June	62.9	48.3	100.5	34.5	64.2	62.1	176.7
Total	7,844.1	5,384.3	12,026.6	5,997.8	12,904.2	8,831.4	9,466.0

Compiled by the Foreign Agricultural Service from official records of the Bureau of Foreign and Domestic Commerce.

APPLES: United States exports, by countries, 1926-27 to 1931-32 and the five-year average, 1926-27 to 1930-31, marketing year July to June

Country	1926-27	1927-28	1928-29	1929-30	1930-31 a/	Average 1926-27 to 1930-31	1931-32 b/
	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels	1,000 barrels
United Kingdom	3,304.9	1,004.4	1,720.0	953.1	1,002.0	1,596.9	1,905.6
Germany	361.6	27.5	236.1	50.0	473.5	229.8	78.6
Netherlands	140.9	1.7	200.5	16.5	392.0	150.3	48.6
France	3.5	-	61.5	8.2	172.0	49.0	375.5
Belgium	80.3	1.1	321.4	13.7	380.0	159.3	193.2
Sweden	72.4	82.4	114.7	96.8	35.6	80.4	84.0
Norway	28.8	20.0	25.3	23.2	11.6	21.8	19.1
Denmark	150.8	42.1	81.2	41.5	65.6	76.2	73.0
Other Europe	11.1	5.1	25.7	26.3	18.7	13.4	13.4
Total Europe	4,154.3	1,184.3	2,786.4	1,209.3	2,551.0	2,377.1	2,791.0
Canada	157.6	54.6	62.8	40.3	40.1	71.1	36.7
Mexico	2.5	1.7	3.1	2.2	2.0	2.3	.1
Cuba	18.6	11.3	10.7	8.9	3.8	10.7	4.8
Brazil	7.3	2.4	1.6	1.4	.2	2.5	-
Argentina	118.9	82.2	125.4	152.5	156.9	127.2	8.1
Others	23.5	11.9	15.3	12.4	9.6	14.5	14.6
Total	4,482.7	1,348.5	3,005.3	1,427.0	2,763.6	2,605.4	2,855.3
	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes
United Kingdom	3,722.7	2,708.7	4,835.6	2,654.8	3,846.0	3,553.6	3,475.1
Germany	1,236.7	736.6	2,695.0	946.2	3,269.5	1,776.8	1,988.1
Netherlands	670.2	71.9	1,687.3	271.7	2,244.0	989.0	1,303.3
France	5.7	.6	76.9	49.4	553.0	137.1	913.0
Belgium	16.2	3.9	65.2	9.5	47.5	28.5	83.3
Sweden	196.2	218.2	337.4	268.8	164.5	237.0	215.8
Norway	95.1	101.2	84.0	91.2	94.9	93.3	74.6
Denmark	156.5	143.8	193.3	100.6	198.6	158.6	250.9
Other Europe	42.8	39.9	82.3	78.7	116.7	72.1	144.7
Total Europe	6,142.1	4,024.8	10,057.3	4,470.9	10,534.7	7,046.0	8,448.8
Canada	729.7	541.8	636.3	499.9	475.0	576.5	237.2
Mexico	98.8	75.1	114.5	75.1	62.6	85.2	3.4
Cuba	92.1	60.0	67.7	47.2	55.4	64.5	33.8
Brazil	172.3	115.0	211.9	192.1	169.7	172.2	126.7
Argentina	154.5	226.9	335.9	294.4	257.0	253.8	167.3
Others	454.6	340.7	602.9	418.1	495.2	462.3	448.8
Total	7,844.1	5,384.3	12,026.5	5,997.8	12,049.7	8,660.5	9,466.0
Grand total in terms of boxes	21,292.2	9,429.9	21,042.6	10,278.9	20,340.6	16,476.9	18,031.9

Compiled from official records of the Bureau of Foreign and Domestic Commerce.
a/ Adjusted approximately to include baskets with barrels and to remove them from the boxed exports. b/ Preliminary.

APPLES: Distribution of the United States apple exports by countries, in per cent of the total barreled and boxed exports, 1924-25 to 1930-31

Year	Total Europe		United Kingdom		Germany		Holland		Belgium	
	Barrels	Boxes	Barrels	Boxes	Barrels	Boxes	Barrels	Boxes	Barrels	Boxes
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
1924-25	92.0	78.1	83.4	65.9	1.3	5.7	-	1.9	-	-
1925-26	90.7	73.1	79.8	49.7	1.4	10.6	-	6.2	.1	.1
1926-27	92.7	78.3	73.7	47.5	8.1	15.8	3.1	8.5	1.8	.2
1927-28	87.8	74.8	74.5	50.3	2.0	13.7	.1	1.3	.1	.1
1928-29	92.7	83.6	57.2	40.2	7.9	22.4	6.7	14.0	10.7	.5
1929-30	84.7	74.5	66.8	44.3	3.5	15.8	1.2	4.5	1.0	.2
1930-31	92.3	87.4	36.3	31.9	17.1	27.1	14.2	18.7	13.7	.4
1931-32	97.7	89.3	66.7	36.7	2.8	21.0	1.7	13.8	6.8	.9

Year	Scandinavian countries		France		Canada		Brazil		Argentina	
	Barrels	Boxes	Barrels	Boxes	Barrels	Boxes	Barrels	Boxes	Barrels	Boxes
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
1924-25	7.0	4.4	-	-	2.3	8.7	.1	2.1	3.5	2.0
1925-26	8.6	6.2	.1	-	1.8	11.5	.5	2.7	5.2	2.6
1926-27	5.6	5.7	.1	.1	3.5	9.3	.2	2.2	2.7	2.0
1927-28	10.7	8.6	-	-	4.0	10.1	.2	2.1	6.1	4.2
1928-29	7.4	5.1	2.0	.6	2.1	5.3	.1	1.8	4.2	2.8
1929-30	11.3	7.7	.6	.8	2.8	8.3	.1	3.2	10.7	4.9
1930-31	4.1	3.8	6.2	4.6	1.4	3.9	-	1.4	5.7	2.1
1931-32	6.1	4.8	13.2	9.6	1.3	2.5	-	1.3	.3	1.8

Year	Mexico		Cuba		Others		Total	
	Barrels	Boxes	Barrels	Boxes	Barrels	Boxes	Barrels	Boxes
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
1924-25	.1	2.3	1.2	1.2	.8	5.6	100	100
1925-26	.1	1.7	.8	1.3	.9	7.1	100	100
1926-27	.1	1.3	.4	1.2	.4	5.7	100	100
1927-28	.1	1.4	.8	1.1	1.0	6.3	100	100
1928-29	.1	1.0	.4	.6	.4	4.9	100	100
1929-30	.2	1.3	.6	.8	.9	7.0	100	100
1930-31	.1	.5	.1	.5	1.1	5.1	100	100
1931-32	-	-	.2	.4	.9	7.2	100	100

Calculated by the Foreign Agricultural Service from the official records of the Bureau of Foreign and Domestic Commerce.

In the five-year period 1926-27 to 1930-31 the total exports of apples from the United States averaged 16,477,000 bushels or 16.8 per cent of the commercial apple crop. Of the exports, boxed apples comprised about 52.5 per cent and barrels 47.5 per cent. Exports of Pacific Coast apples averaged 8,660,000 boxes or 19.2 per cent of the commercial boxed-apple crop, and Atlantic Coast exports amounted to 2,605,000 barrels or 15.4 per cent of the commercial barreled-apple crop. Both barreled and boxed apples are exported from the United States the year around. Shipments start in July, and grow in volume until they reach a peak in November. They remain heavy through March and then taper off to small quantities in June. The boxed apple export season is on an average longer than the barreled season, and, except in the months of September, October, and November, boxed shipments exceed those of barreled apples. (See tables, pages 24, 25.)

American apples, especially boxed apples, are widely distributed throughout the world. The bulk of the fruit, however, goes to the United Kingdom, Germany, and other European countries. In the five-year period 1926-27 to 1930-31 the European countries took on an average 2,377,000 barrels or 91.2 per cent of the barreled exports and 7,046,000 boxes or 81.4 per cent of the boxed exports. These exports were divided 1,577,000 barrels, or 61.3 per cent of the total barreled exports, and 3,554,000 boxes, or 41.0 per cent of the total boxed exports, to the United Kingdom; 230,000 barrels, or 8.8 per cent, and 1,777,000 boxes, or 20.5 per cent, to Germany; 150,000 barrels, or 5.8 per cent, and 989,000 boxes, or 11.4 per cent, to the Netherlands; 178,000 barrels, or 6.8 per cent, and 489,000 boxes, or 5.6 per cent, to the Scandinavian countries; and 222,000 barrels, or 8.6 per cent, and 238,000 boxes, or 2.7 per cent, to all other European countries. Most of the remaining exports were sent to Canada, Argentina, and Brazil. In the period under survey, Canada imported 71,000 barrels, or 2.7 per cent of the barreled exports, and 576,000 boxes, or 6.7 per cent, of the boxed exports; about 127,000 barrels, or 4.9 per cent, and 254,000 boxes, or 2.9 per cent, went to Argentina; 2,500 barrels, or .2 per cent, and 172,000 boxes, or 2.0 per cent, were taken by Brazil; and 27,500 barrels, or 1.0 per cent; and 612,000 boxes, or 7.1 per cent, were exported to all other countries, principally Mexico, Cuba, Philippine Islands, and Asiatic countries. (See tables, pages 25, 26.)

Total exports of apples from the United States in the 1931-32 season have amounted to 18,032,000 bushels, which is 9.4 per cent greater than the average of 16,477,000 bushels for the last five seasons, but it is about 11.4 per cent below the amount shipped in 1930-31. This diminution is due to unsatisfactory demand conditions in the principal foreign markets and to the decline in the boxed shipments this season. Shipments of barreled apples in the 1931-32 season totaled around 2,855,000 barrels which amount is 10.2 per cent greater than the average shipments of 2,605,000 barrels in the past five seasons, and 3.3 per cent greater than the 2,764,000 barrels shipped in the 1930-31 season. The increase is accounted for by the large barreled apple crop in 1931, particularly in the important Shenandoah-Cumberland Valley section of Virginia, West Virginia, Pennsylvania, and Maryland. Boxed-apple exports in 1931-32 amounted to 9,466,000 boxes, or 9.3 per cent more than the average shipment of 8,660,000 boxes but 21.4 per cent less than the 12,050,000 boxes shipped in 1930-31. The decline in boxed-apple exports was due to the

smaller crop and the low prices ruling in foreign markets. Although the quantity of boxed apples exported declined compared with the previous year, the proportion of the crop exported was the highest on record, amounting to 24.7 per cent of the boxed crop. Barreled exports amounted to 12.9 per cent of the crop or just slightly below average.

Origin of exports and export varieties: Most of the apples exported from the United States are grown in Washington, Virginia, West Virginia, New York, California, and Oregon. Winesap and Jonathan are the most important varieties grown in the state of Washington which are exported. Rome Beauty, Stayman Winesap, Delicious, Spitzenburg, Yellow Newtown, and some varieties of lesser importance are also exported. Important export varieties grown in Oregon are Yellow Newtown, Spitzenburg and Ortley. Some Oregon Jonathan, Rome Beauty, and Winter Banana are also shipped to foreign markets. In California, Yellow Newtown and Gravenstein are the principal varieties which enter the export market. Apples grown in Virginia and West Virginia which are important in the export market are: York Imperial, Winesap, Ben Davis, Albemarle Pippin (Yellow Newtown), and Stayman Winesap. Considerable quantities of Virginia Delicious, Black Twig, and Jonathan also move into foreign trade. In New York State the leading export varieties are Baldwin, Rhode Island Greening and Ben Davis.

Ports of export: The main apple-shipping ports are New York, Seattle, Portland, San Francisco and Baltimore. In the five-year period, 1926-27 to 1930-31 total exports have averaged 16,477,000 bushels (all exports in terms of bushels). Of this amount 9,878,000 bushels or 60.0 per cent of the total exports cleared from New York; 2,970,000 bushels, or 18 per cent from Seattle; 1,545,000 bushels, or 9.4 per cent from Portland; 500,000 bushels, or 3.0 per cent from San Francisco and 1,584,000 bushels, or 9.6 per cent from all other points. Border shipments from Michigan to Canada amounted to 439,000 bushels, or 2.7 per cent of the total. About 8,661,000 boxes were exported on an average during this period of which 34.3 per cent were shipped from Seattle, 31.9 per cent from New York, 17.8 per cent from Portland, 5.8 per cent from San Francisco, 4.8 per cent from Michigan, and 5.4 per cent from all other ports. The barreled exports averaged 2,605,000 barrels, practically all of which were shipped from New York. During 1931-32, however, a considerable proportion of the barreled apple exports moved out of Baltimore and Norfolk. About 1,135,000 barrels cleared from the former and 128,000 barrels from the latter port. This development was not unexpected since there has been a definite tendency in the last few seasons to ship fruit direct to foreign markets from the ports closest to the point of growth. In recent years there has been a rapid increase in the apple shipments from the West Coast via Panama which has resulted in Seattle becoming the most important outlet for boxed apples. (See table, page 29.)

UNITED STATES: Apple exports, by customs districts, 1926-27 to 1931-32 and the five-year average 1926-27 to 1930-31

Customs district	Season July-June						
	1926-27	1927-28	1928-29	1929-30	1930-31	Average 1926-27 to 1930-31	1931-32
	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
BOXES							
New York (City)	2,989	2,212	3,996	1,694	a/ 2,924	2,763	2,164
Washington (Seattle)	1,784	1,366	4,052	2,523	5,126	2,970	4,664
Oregon (Portland)	1,688	684	2,287	709	2,358	1,545	1,143
San Francisco	275	405	622	350	849	500	1,002
Michigan	483	315	589	340	367	419	223
Maine and New Hampshire	22	11	39	30	32	27	12
Philadelphia	2	0	0	0	0	0	0
Maryland (Baltimore)	0	d/ 1	e/ 1	1	1	1	117
Florida	91	60	76	35	30	58	28
San Antonio	49	27	47	17	15	31	b/
All others	459	303	318	309	348	347	113
Total	7,842	5,384	12,027	5,998	a/ 12,050	8,661	9,466
BARRELS							
New York (City)	3,906	1,213	2,855	1,275	a/ 2,609	2,372	2,318
Maryland (Baltimore)	c/ 3	3	b/	0	0	1	339
Maine and New Hampshire	94	51	36	43	43	53	12
Philadelphia	25	b/	6	2	1	7	3
Florida	14	10	10	9	3	9	1
Michigan	17	5	8	2	2	7	6
All others	424	67	90	96	106	156	g/ 176
Total	4,483	1,349	3,005	1,427	a/ 2,764	2,605	2,855
Total in bushels f/							
New York (City)	14,706	5,850	12,561	5,520	10,752	9,878	9,117
Washington (Seattle)	1,784	1,366	4,052	2,523	5,126	2,970	4,664
Oregon (Portland)	1,688	684	2,287	709	2,358	1,545	1,143
San Francisco	275	405	622	350	849	500	1,002
Michigan	534	330	612	345	372	439	240
Maryland (Baltimore)	9	10	1	1	1	4	1,135
All others	2,296	785	908	831	883	1,141	731
Total	21,292	9,430	21,043	10,279	20,341	16,477	18,032

Compiled by the Foreign Agricultural Service from the official records of the Bureau of Foreign and Domestic Commerce. a/ Basket exports of 854,000 have been added to the New York barreled exports and deducted from the boxed exports from New York. This was necessary since basketed exports had been erroneously included with boxed exports. b/ Less than 500 barrels. c/ International Apple Association report. d/ Calendar year 1927. e/ Calendar year 1928. f/ Bushels of 44 pounds approx. or the equivalent of one box or basket; one barrel equals three bushels. g/ Includes the equivalent of 128,000 barrels shipped from Virginia ports.

CANADA

Area and varieties: The apple industry of Canada is mainly located in the provinces of Nova Scotia, Ontario, and British Columbia. Nova Scotia records show that as far back as 1698 there were 1,600 apple trees in the Annapolis Valley, which is the principal growing region of that province. The Annapolis Valley region extends about 100 miles from Windsor on the east to Digby on the west. The main producing district, however, is only about 65 miles long and is bounded by two protecting ridges, leaving a sheltered area 15 miles wide in the east and three miles in the west where the bulk of the fruit is grown. About 41,000 acres are planted to apples of which 32,600 are in bearing and 8,400 non-bearing. Orchards for commercial purposes have been planted on a fairly large scale since 1860, but it was not until 1900 that careful attention was given to planting. From 1900 to 1914, plantings were quite heavy; then they tapered off and did not become important again until after the war in the period of 1921-1928. The main varieties of apples grown in Nova Scotia are Stark, 13 per cent of the total, Baldwin, 12.5 per cent; King, 6 per cent; Ben Davis, 5.9 per cent; Cox's Orange, 5.5 per cent; Northern Spy, 5.4 per cent; and Golden Russet and Gravenstein, 4.5 per cent. The other 47 per cent of the plantings is composed of a great many varieties, the most important of which are Ribston, Wagener, Blenheim Orange, Gano, Fallawater, and Nonpareil. New plantings have been made up mostly of Cox Orange, Baldwin, Crimson Gravenstein, Northern Spy and to a lesser extent, McIntosh, Ben Davis, and Golden Russet.

The important apple-producing region of Ontario is located in the southeastern portion or in that part of Ontario which lies between Lakes Erie, Ontario, and Huron. The proximity of these large bodies of water modifies the climate sufficiently so that good crops can be produced. The heaviest production is along the northern shore of Lake Ontario and the Niagara Peninsula. Some fruit is also produced near the St. Lawrence River front as far east as Dundela and along the southern shore of Gorgian Bay. The principal varieties grown in Ontario are Baldwin, Rhode Island Greening, Northern Spy, McIntosh, Wealthy, Ben Davis, Golden Russet, Stark, Gano, and Snow.

Most of the apples produced in British Columbia are grown in Yale county around Okanagan Lake and to a smaller degree around Kootenay and Arrow Lakes in West Kootenay County. The main shipping points are Vernon, Kelownia, Summerland and Penticton. The leading varieties produced are McIntosh, Jonathan, Delicious, Wealthy, Yellow Newtown, Winesap, Rome Beauty, Duchess, Wagener, Grimes Golden, Spitzenburg, and Winter Banana.

Small quantities of apples are also produced in Quebec and New Brunswick, but most of these are consumed locally and do not enter the export market. The chief varieties grown in New Brunswick are Snow, McIntosh, Dudley, Bishop Pippin, Bethel, Golden Russet, Wealthy, Alexander, and Wolf River. In the province of Quebec the leading varieties produced are Wealthy, Duchess, Alexander, McIntosh, Fameuse, St. Lawrence, and Wolf River.

Production: In the eight-year period 1923-1930 Canada produced on an average 9,798,000 bushels of apples. Nova Scotia supplied 3,663,000 bushels, or 37.4 per cent of this amount; British Columbia, 3,498,000 bushels

CANADA: Commercial apple production by provinces, 1916 to 1931

Harvest year	Barreled region: Nova Scotia	Barreled region: Ontario	Boxed region: British Columbia	Total
	Bushels	Bushels	Bushels	Bushels
1916	1,839,969	a/	1,130,580	a/
1917	2,010,771	a/	1,606,860	a/
1918	2,184,300	a/	1,350,000	a/
1919	4,320,000	a/	2,012,310	a/
1920	3,819,555	6,890,778	1,459,953	12,170,286
Average 1916-1920	2,834,919	a/	1,511,940	a/
1921	4,739,307	4,347,630	3,131,208	12,218,145
1922	4,481,556	3,912,750	3,186,525	11,580,831
1923	5,049,990	2,934,900	3,338,052	11,322,942
1924	3,828,675	2,054,430	2,548,722	8,431,827
1925	2,868,168	2,850,414	2,798,019	8,516,601
Average 1921-1925	4,193,538	3,220,026	3,000,504	10,414,068
1926	2,782,110	1,720,800	3,935,400	8,438,310
1927	2,775,000	2,020,500	3,238,500	8,034,000
1928	3,267,000	1,683,900	4,373,160	9,324,060
1929	5,213,628	2,426,901	3,304,071	10,944,600
1930	3,517,329	1,911,000	4,331,664	9,759,993
Average 1926-1930	3,511,014	1,994,040	3,836,559	9,341,613
1931	4,282,000	2,927,100	3,447,000	10,656,100
1932	b/ 3,304,000	b/ 1,924,000	b/ 4,413,000	b/ 9,641,000

Fruit Branch Canadian Department of Agriculture. a/ Not available. b/ Preliminary. Bushels of 44 pounds.

CANADA: Production by provinces and the total production of apples, 1923-1931

Harvest year	British Columbia	Nova Scotia	Ontario	Quebec and New Brunswick	Total
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
1923	3,333	5,049	2,934	201	11,517
1924	2,676	3,828	2,055	306	8,865
1925	2,799	2,868	2,850	423	8,940
1926	3,936	2,781	1,722	426	8,865
1927	3,237	2,775	2,022	399	8,433
1928	4,374	3,267	1,683	384	9,708
1929	3,303	5,214	2,634	666	11,817
1930	4,332	3,516	1,911	474	10,233
Average 1923-1930	3,498	3,663	2,226	411	9,798
1931	3,447	4,282	2,927	723	11,379
1932 estimate	4,413	3,304	1,924	619	10,260

Fruit Branch, Canadian Department of Agriculture. Bushels of 44 pounds.

CANADA: Per capita consumption of apples, 1921-22 to 1930-31

Year	Production a/	Net exports fresh apples b/	Net exports dried apples b/ (Fresh basis)	Total supply c/	Total supply for use fresh d/	Per capita consumption: All apples	Per capita consumption: Fresh apples
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Pounds	Pounds
1921-22	12,498	5,175	1,173	6,150	5,961	33.1	32.1
1922-23	11,670	4,182	e/ 267	7,755	7,320	41.2	38.9
1923-24	11,517	4,227	117	7,173	6,624	37.5	34.7
1924-25	8,865	3,771	138	4,956	4,635	25.6	23.9
1925-26	8,940	3,759	1,008	4,173	3,807	21.3	19.4
Average	10,698	4,224	435	6,042	5,670	31.7	29.8
1926-27	8,865	2,421	153	6,291	5,889	31.6	29.6
1927-28	8,433	2,202	276	5,955	5,649	29.5	28.0
1928-29	9,708	2,721	e/ 582	7,569	6,948	37.0	34.0
1929-30	11,817	5,163	294	6,360	5,772	30.7	27.9
1930-31	10,233	4,188	534	5,511	5,280	26.3	25.2
Average	9,810	3,339	135	6,336	5,907	31.0	28.9

Compiled by the Foreign Agricultural Service Division of the Department of Agriculture. Converted to bushels of 44 pounds.
a/ Publications of the Fruit Branch of the Canadian Department of Agriculture. b/ Quarterly Reports of the Trade of Canada. c/ Calculated by deducting net exports dried and fresh apples from the total production. d/ Calculated by deducting net exports fresh apples and exports of dried in terms of fresh from the total production. e/ Net import.

CANADA: Fruit production 1926 to 1931, July 1 estimate for 1932 and the five-year average 1926-30

Province	1926	1927	1928	1929	1930	Average 1926-1930	1931	Estimated 1932
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Apples								
British Columbia	3,936	3,237	4,374	3,303	4,332	3,836	3,447	4,413
Nova Scotia	2,781	2,775	3,267	5,214	3,516	3,511	4,282	3,304
Ontario	1,722	2,022	1,683	2,634	1,911	1,994	2,927	1,924
Quebec and New Brunswick	426	399	384	666	474	470	723	619
Total Canada	8,865	8,433	9,708	11,817	10,233	9,811	11,379	10,260
Pears								
British Columbia	143	107	170	130	134	137	161	131
Ontario	114	211	81	218	300	185	229	280
Nova Scotia	9	14	5	1	3	6	10	4
Total Canada	266	332	255	349	437	328	400	415
Peaches								
British Columbia	79	41	70	58	60	62	46	71
Ontario	159	306	536	615	697	462	836	807
Total Canada	238	347	606	673	757	524	882	878

continued -

CANADA: Fruit production 1926 to 1931, July 1 estimate for 1932 and the five-year average 1926-30, continued

Province	1926	1927	1928	1929	1930	Average 1926-1930	1931	Estimated 1932
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Cherries								
British Columbia	92	44	55	79	65	67	66	75
Ontario	110	173	216	175	197	174	172	218
Total Canada	202	217	271	254	262	241	238	293
Apricots								
British Columbia	57	18	36	33	13	31	49	41
Plums and Prunes								
British Columbia	a/	106	166	134	112	a/	90	154
Ontario	a/	150	314	151	162	a/	127	137
Total Canada	347	256	480	285	275	329	217	291
	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons
Grapes								
British Columbia	-	-	-	-	135	a/	267	314
Ontario	12,000	17,280	34,560	25,213	21,552	22,121	25,415	26,932
Total Canada	12,000	17,280	34,560	25,213	21,687	22,148	25,682	27,246

Compiled by the Foreign Agricultural Service from reports of the Fruit Branch of the Canadian Department of Agriculture. a/ Not available.

CANADA: Estimated exports of apples by countries, in terms of bushels, for the crop years 1928-29 to 1930-31

Country	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
United Kingdom	2,623,659	4,709,394	3,322,548
United States	144,267	345,021	156,117
Belgium	222,195	94,995	784,434
Denmark	38,811	107,604	132,987
Holland	46,290	-	97,449
Newfoundland	45,510	37,962	48,798
France	9,807	7,245	84,783
South America	-	15,549	30,168
New Zealand	24,729	35,196	30,000
Germany	13,842	8,901	26,550
South Africa	20,676	27,495	25,509
Sweden	10,341	118,935	11,250
West Indies, Bermuda	6,939	16,071	12,312
Orient	9,372	7,758	7,824
Egypt	-	-	3,852
East Africa, Mediterranean	-	-	1,959
Fiji	456	789	837
Dutch East Indies	126	129	750
Cuba	-	-	675
India	-	-	81
Mexico	-	-	9
Philippines	39	-	-
Norway	-	651	-
Total	3,217,059	5,533,695	4,778,892

Fruit Branch, Canadian Department of Agriculture. Converted to bushels of 44 pounds.

CANADA: Apple storage as of December 1 and the per cent of the total crop, 1929 to 1931

Year	Cold storage		Common storage		Total as barrels	Per cent of total crop
	1,000 barrels	1,000 boxes	1,000 barrels	1,000 boxes	1,000 barrels	Per cent
1929	77	332	1,446	439	1,783	45.3
1930	46	673	516	637	998	29.3
1931	123	752	689	380	1,189	32.5

Fruit Notes of the Empire Marketing Board.

CANADA: Cold-storage holdings of apples, October 1, to April 1, five-year average, 1924-25 to 1928-29, and annually, 1929-30 to 1931-32

Month	Average 1924-25 to 1928-29	1929-30	1930-31	1931-32
	Barrels	Barrels	Barrels	Barrels
October	10,609	4,861	1,745	4,345
November	42,080	49,764	26,892	48,075
December	67,146	88,068	41,743	61,439
January	56,336	66,350	33,950	40,648
February	37,497	49,447	19,611	28,084
March	27,956	46,144	10,137	14,308
April	17,050	13,236	4,864	5,685
	Boxes	Boxes	Boxes	Boxes
October	16,087	35,854	72,209	95,819
November	145,430	164,279	291,013	351,593
December	289,163	254,525	454,384	522,249
January	238,479	243,444	384,895	430,380
February	173,848	168,772	256,801	338,801
March	127,810	96,742	169,388	238,429
April	80,373	81,295	84,316	152,684

Monthly Cold Storage Holdings in Canada, Department of Trade and Commerce, Dominion Bureau of Statistics, Agricultural Branch.

or 35.7 per cent; Ontario, 2,226,000 bushels or 22.7 per cent; and Quebec and New Brunswick, 411,000 bushels, or 4.2 per cent. Production has varied from 8,433,000 bushels in 1927 to 11,817,000 bushels in 1929 or a variation of 40 per cent. Production of apples in Canada since 1921 does not show any definite trend, which is probably accounted for by the stationary condition of the industry in Nova Scotia and the fact that the apparent decline in production in Ontario has been offset by an increase in British Columbia. (See tables, pages 31, 32.) In both Nova Scotia and Ontario the bulk of the crop is packed in barrels. Some baskets are used but the amount is small. The apples are mostly sorted into two grades, No. 1 and Domestic. British Columbia apples are packed in boxes and graded in about the same way as Washington State fruit.

Consumption: The per capita consumption of apples for all purposes in Canada during the five-year period 1921-22 to 1925-26 averaged 31.7 pounds compared with 68.0 pounds in the same period in the United States. The consumption of fresh apples in Canada amounted to 29.8 pounds against 35.1 pounds per person in the United States. In the five-year period 1926-27 to 1930-31 the Canadian per capita consumption of all apples was 31.0 pounds and of fresh apples 28.9 pounds. These figures compare with 59.2 pounds and 32.4 pounds, respectively, for the same period in the United States. (See table, page 32.)

Storage holdings: By December 1 in the three-year period 1929-1931 about 35.6 per cent of the Canadian apple crop has been in storage, but by far the largest part has been in common storage. Barreled apples are mostly stored in common storage and boxes in cold storage. As was the case in the United States, the peak month for storage holdings in Canada is December. Holdings rapidly diminish in January and February and are practically cleaned up by April. Due to the wider use of cold storage for boxed apples their season is longer than that of barreled apples. (See tables, page 34.)

Exports: Apples have been exported from Canada for many years. Exports in the five-year period 1889-90 to 1893-94 averaged 919,500 bushels compared with 1,455,000 bushels exported from the United States during the same period. The Canadian exports were all from Nova Scotia, where apple growing in Canada was first established. With the exception of the five-year period 1914-15 to 1918-19, when shipments were disrupted owing to the war, exports from Canada have shown a steady growth. During the five-year period 1899-1900 to 1903-04 they averaged 2,082,000 bushels against 3,816,000 from the United States; from 1909-10 to 1913-14 exports averaged 3,072,000 bushels compared with 4,794,000 from the United States; and in the period 1924-25 to 1928-29 exports reached a total of 3,621,000 bushels, whereas those from the United States averaged 12,870,000 bushels. (See table, pages 22, 23.) Just as the boxed-apple production in the Pacific Northwest boosted the United States apple exports the increase in the boxed-apple production in British Columbia has increased the Canadian exports. This movement first became important in the 1921-22 season.

During the last five years, 1926-27 to 1930-31, according to the International Apple Association, the total average apple exports from Canada have been 3,987,000 bushels. Barreled apples constituted 73.3 per cent of the total, or 974,000 barrels, and boxed apples 26.7 per cent, or 1,063,000 boxes. (See table, page 36.) The exports of barreled apples during this period

CANADA: Exports of apples, by provinces, and the per cent of the commercial crop of each province exported

Province	1928-29 Thousand bushels	1928-29 Per cent of crop	1929-30 Thousand bushels	1929-30 Per cent of crop	1930-31 Thousand bushels	1930-31 Per cent of crop
Nova Scotia a/	2,049	62.7	4,206	80.6	3,033	86.2
Ontario a/	216	12.8	588	22.3	405	21.2
British Columbia	951	21.7	738	22.4	1,341	30.9
Total	3,216	33.1	5,532	46.8	4,779	46.7

Fruit Branch, Canadian Department of Agriculture.
a/ Converted to bushels at three bushels to the barrel.

CANADA: Exports of apples by container and ports, 1926-27 to 1930-31 a/

Ports	1926-27	1927-28	1928-29	1929-30	1930-31
	Barrels	Barrels	Barrels	Barrels	Barrels
Montreal	182,000	56,000	35,000	108,000	74,000
Halifax	630,000	588,000	688,000	1,265,000	747,000
Other	24,000	30,000	30,000	143,000	269,000
Total barrels	836,000	674,000	753,000	1,516,000	1,090,000
	Boxes	Boxes	Boxes	Boxes	Boxes
Montreal	731,000	335,000	866,000	595,000	1,024,000
Vancouver	261,000	177,000	225,000	181,000	285,000
Other	198,000	93,000	132,000	79,000	132,000
Total boxes	1,190,000	605,000	1,223,000	855,000	1,441,000
Total terms bushels	3,698,000	2,627,000	3,482,000	5,403,000	4,711,000

Compiled by the Foreign Agricultural Service from annual reports of the International Apple Association. During 1930-31, 5,128 baskets were shipped from Montreal and 6,209 from Halifax. These have been included with the barrels.
a/ These figures do not include the small exports to the United States.

CANADA: Apple exports by months July to June, 1928-29 to 1931-32

Month	1928-29	1929-30	1930-31	1931-32
	Bushels	Bushels	Bushels	Bushels
July	126	465	-	15
August	4,464	1,479	1,278	1,005
September	65,232	111,729	229,149	379,956
October	650,826	1,128,516	1,507,293	1,433,748
November	679,686	1,179,594	1,436,559	1,470,237
December	438,600	791,931	786,153	559,650
January	593,142	684,864	252,810	441,582
February	397,557	680,265	245,364	516,393
March	354,738	962,358	231,372	167,523
April	97,434	95,964	6,282	a/
May	8,091	6,015	195	a/
June	114	321	60	a/
Total	3,290,010	5,643,501	4,696,515	b/ 4,970,109

Trade of Canada. Converted from barrels to bushels of 44 pounds. a/ Not available. b/ Nine months' total; includes bulk of exports.

CANADA: Imports of apples by months, July - June, 1928-29 to 1931-32

Month	1928-29	1929-30	1930-31	1931-32
	Bushels	Bushels	Bushels	Bushels
July	72,024	79,995	96,543	79,404
August	144,096	66,315	65,274	28,971
September	18,684	10,563	3,387	2,442
October	36,093	12,231	17,628	6,675
November	48,234	21,663	16,707	1,371
December	14,175	13,761	9,633	5,853
January	7,248	10,443	6,399	2,703
February	22,080	47,601	12,327	1,986
March	78,816	85,035	57,315	7,389
April	41,214	33,714	78,945	a/
May	53,055	62,973	76,332	a/
June	33,384	36,522	68,037	a/
Total	569,103	480,816	508,527	a/

Trade of Canada. Converted from barrels to bushels of 44 pounds. a/ Not available.

have constituted 48.9 per cent of the average barreled-apple crop and the boxed exports 27.8 per cent of the average boxed-apple crop or taken as a whole exports amount to 40.6 per cent of the combined boxed and barreled crops. This figure is over twice as large as the percentage of the apple crop exported from the United States and is mainly accounted for by the high ratio of exports to production in Nova Scotia. In the 1928-29 season 62.7 per cent of the Nova Scotia crop was exported; in 1929-30, 80.6 per cent; and in 1930-31, 86.2 per cent. In Ontario exports amounted to 12.8 per cent of the crop in 1928-29, 22.3 per cent in 1929-30, and 21.2 per cent in 1930-31. In the same years the exports of British Columbia apples amounted to 21.7 per cent, 22.4 per cent, and 30.9 per cent of the respective crops. (See table page 36.)

Nova Scotia is very favorably situated with respect to the British market but rather unfavorably situated as to the Canadian market which accounts for the large per cent of the crop being exported. Halifax, the principal port of export, is 700 miles nearer Europe than New York City and is only 100 miles from Middleton in the heart of the orchard district. Halifax is an open port and is used the year around. Port William and Kingsport are also used for export. Both are within trucking distance of the orchard area. These two ports, however, are not ice free and shipping has to be completed by about January 1. Ontario apples are mainly consumed in eastern Canada. Montreal is the chief port of export. The British Columbia apple crop is marketed in all parts of Canada and in many foreign countries, principally the United Kingdom. The chief ports of export for British Columbia boxed apples are Montreal and Vancouver. (See table, page 36.)

The United Kingdom takes the bulk of the Canadian apple exports. In the three-year period 1928-29 to 1930-31 an average of 3,552,000 bushels of apples, or 78.8 per cent of the total exports, went to the United Kingdom; 606,000 bushels, or 13.4 per cent, to Continental Europe; 213,000 bushels, or 4.8 per cent, to the United States; and 138,000 bushels, or 3.0 per cent, to all other countries, making a total average export for the period under survey of 4,509,000 bushels. (See table, page 33.) The main marketing season for Canadian apples is, approximately, September-April. The heaviest export movement, however, is from October to January. The peak export month in 1928-29, 1929-30, and 1931-32 was November but in 1930-31 it had moved up to October. There has been a tendency on the part of shippers in the last few years to export as much of the crop as possible before the British embargo on American apples is lifted November 15. (Between July 7 and November 15, only United States apples of the two highest grades are permitted to enter the United Kingdom).

Imports: Canada imported on an average in the three-year period, 1928-1930, about 520,000 bushels of apples a year, practically all of which come from the United States. The bulk of the imports are boxed apples. Imports are heavy in July and August and again from March to June in which months domestic supplies are scarce. (See tables, pages 37, 39.)

CANADA: Imports of apples by countries, 1928-1930

Country	1928	1929	1930
	Bushels	Bushels	Bushels
Imports:			
United States.....	621,501	428,712	472,110
United Kingdom.....	300	-	-
Other countries.....	11,694	11,613	13,350
Total.....	633,495	440,325	485,460

Trade of Canada, Calendar years, 1928-1930. Converted to bushels of 44 pounds.

CANADA: Percentage of slack barrels among Nova Scotian apples, sold by some of the leading Liverpool importers, and the losses on slacks, 1927-28 to 1930-31

Season	Number of barrels in the survey	Tight barrels: Number of barrels	Tight barrels: Weighted average price	Slack barrels: Number of barrels	Slack barrels: Weighted average selling price slacks: If tight a/	Slack barrels: Weighted average selling price slacks: When slack b/	Per cent slack	Weighted average loss in value c/
	Barrels	Barrels	Per bbl.	Barrels	Per bbl.	Per bbl.	Per cent	Per bbl.
1927-28...	43,371	40,623	$ 5.38	2,748	$ 5.79	$ 5.23	6.3	$ .56
1928-29...	47,822	42,154	$ 5.70	5,668	$ 5.73	$ 5.28	11.9	$ .45
1929-30...	48,511	39,854	$ 4.34	8,657	$ 4.30	$ 3.81	17.8	$ .49
1930-31...	46,223	29,935	$ 4.72	16,288	$ 4.57	$ 4.00	35.2	$ .57
Average..	46,482	38,142	$ 5.07	8,340	$ 4.80	$ 4.27	17.9	$ .53

Arranged by the Foreign Agricultural Service from a survey published by the Fruit Branch of the Canadian Department of Agriculture. The survey covered the four marketing seasons 1927-28 to 1930-31, with the exception of the first season, when Gravensteins were omitted, the examination covered Gravensteins, Kings, Baldwins and Golden Russets. Golden Russets usually sold at the highest price, Kings second and then Baldwins and Gravensteins. In the three years when all four varieties were examined, 30.6 per cent consisted of Kings, 28.0 per cent of Baldwins, 22.3 per cent of Gravensteins and 19.1 per cent of Golden Russets. The tests showed that 46.4 per cent of the Gravensteins, 22.0 per cent of the Golden Russets, 13.9 per cent of the Kings and 9.5 per cent of the Baldwins were slack.

a/ Calculated by weighting the actual price for tight barrels by the number of slack barrels to determine the price they would have sold for, if they were not slack. b/ Actual weighted selling price. c/ Actual weighted loss in value due to slacks.

Australia and New Zealand

Australia

Area in apple trees: The last acreage estimate, 1929-30, placed the area under apple trees in Australia at 97,488 acres, of which 81,447 acres or 83.5 per cent were in bearing and 16,041 acres or 16.5 per cent were non-bearing. Very little change in acreage has occurred in the last ten years. The total has declined slightly, but since production has been well maintained the acreage decline is probably accounted for by removals of poorly located or unsatisfactory trees. (See table, page 41.) The plantings are divided among the states as follows: Victoria 32,205 acres or 33.0 per cent of the total; Tasmania 25,307 acres or 26.0 per cent; New South Wales 14,718 acres or 15.1 per cent; South Australia 10,328 acres or 10.6 per cent; Western Australia 10,885 acres or 11.2 per cent; Queensland 4,012 acres or 4.1 per cent; and Federal Capital Territory 33 acres.

The Tasmanian apple industry is mainly located in the Huon district in the southern part of the island. Some fruit is also produced in the northern part of the island. Trees were planted in the Huon River Valley as early as 1843. The earliest commercial plantings in Australia were made in this district. The first apple exports from Australia to England were shipped from Tasmania in 1884. The most important apple varieties grown in Tasmania, according to Mr. P. H. Thomas, Chief Horticulturist, are Sturmer Pippin, 23.6 per cent of the total; Scarlet Pearmain, 13.1 per cent; Jonathan, 13.1 per cent; Cleopatra, 11.3 per cent; French Crab, 5.8 per cent; and Cox's Orange Pippin, 5.3 per cent. The balance of 27.8 per cent is made up of many varieties, chief of which are Democrat, Ribston, Alfriston, King Pippin, London Pippin, Duke of Clarence, Granny Smith, Delicious, Stone Pippin, Crow's Egg, Dunns, and Crofton. Jonathans, Cox's Orange Pippin, Ribston Pippin, Alfriston, King Pippin, Duke of Clarence, and Dunns ripen in March; Scarlet Pearmain, Cleopatra, London Pippin, Delicious, and Crow's Egg, in April; and Sturmer Pippin, French Crab, Democrat, Granny Smith, Stone Pippin, and Crofton, in May.

The chief varieties produced in Victoria are Jonathan, Rome Beauty, London Pippin, Yates Imperial, Dunn's Seedling, Stewart's Delicious, Cleopatra, Statesman, and Reinette du Canada, of which Jonathan is by far the most important. The leading varieties in New South Wales are Jonathan, Cleopatra, Dunn's Seedling, Rome Beauty, Five Crown Pippin, Granny Smith, Stayman Winesaps, and McIntosh Red. South Australia grows mostly Jonathan, Cleopatra, Dunn's Seedling, Scarlet Pearmain, Rome Beauty, Sturmer Pippin, Cox's Orange Pippin, Democrat, London Pippin, Esopus, Spitzenburg, and Gravenstein. In Western Australia, the most important varieties are Jonathan, Cleopatra, Dunn's Seedling, Rome Beauty, Granny Smith, Delicious, Sturmer Pippin, Cox's Orange Pippin, Democrat, London Pippin, and Ben Davis. The principal varieties grown in Queensland are Jonathan, Gravenstein, Granny Smith, and Delicious.

Production: The average annual apple production in Australia during the five years 1925-1929 was 7,476,000 bushels. Tasmania produced 3,283,000 bushels or 43.9 per cent of this total; Victoria, 1,835,000 bushels or 24.5 per cent; New South Wales, 780,000 bushels or 10.4 per cent; South Australia,

728,000 bushels or 9.7 per cent; Western Australia, 723,000 bushels or 9.7 per cent; Queensland, 126,000 bushels or 1.7 per cent; and the Federal Capital Territory, the small remainder of about 1,000 bushels. The production alternates markedly. For the last seven years the production has been heavy in all states except Western Australia on the even harvest years and light on the odd years. Crops in Western Australia are usually heavy on the odd years. (See table, below.).

AUSTRALIA: Total area in apple orchards, 1920-21 to 1929-30

Year	Bearing	Non bearing	Total
	Acres	Acres	Acres
1920-21	80,549	22,841	103,390
1921-22	82,190	21,873	104,063
1922-23	80,369	19,928	100,297
1923-24	80,319	19,514	99,833
1924-25	80,848	17,821	98,669
1925-26	80,846	17,537	98,383
1926-27	80,951	17,371	98,322
1927-28	82,346	15,898	98,244
1928-29	82,202	16,136	98,338
1929-30	81,447	16,041	97,488

Compiled by Foreign Agricultural Service from official statistics, Commonwealth of Australia.

AUSTRALIA AND NEW ZEALAND: Apple production, harvest years, average 1925-1929, annual 1928-1932

State and country	Average 1925-1929	1928	1929	1930	1931	Estimate 1932
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Tasmania	3,283	4,673	2,500	3,950	3,750	4,250
Victoria	1,835	3,713	626	2,779	1,515	875
New South Wales	780	1,254	640	931	909	245
South Australia	728	1,352	447	1,225	487	850
Western Australia	723	409	1,123	442	749	760
Queensland	126	104	183	177	217	140
Federal Capital Territory	1	-	-	873	a/	a/
Total Australia	7,476	11,505	5,519	9,506	b/ 7,628	b/ 7,120
New Zealand	1,885	2,199	2,067	2,182	a/	a/
Grand total	9,361	13,704	7,586	11,687	a/	a/

Compiled by Foreign Agricultural Service, official statistics Commonwealth of Australia and Agricultural and Pastoral Production for New Zealand.
a/ Not available. b/ Estimate.

Consumption: The increase in apple production in Australia has been accompanied by an increased per capita consumption. In the three-year period 1913-1915 the average per capita consumption was about 29.3 pounds; from 1916 to 1920, it amounted to 27.8 pounds; between 1921 and 1925, consumption averaged 35.2 pounds, and in the period 1926-1930, the figure was 38.8 pounds. (See table below.)

AUSTRALIA: Production and per capita consumption of apples 1913 to 1930

Marketing year	Production	Exports fresh a/	Exports dried in terms of fresh	Total supply	Per capita consumption
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Pounds
1913	4,692	1,373	b/	3,319	30.0
1914	5,000	1,120	b/	3,880	34.5
1915	3,182	495	b/	2,687	23.6
Average	4,291	996	b/	3,295	29.3
1916	6,594	1,356	b/	5,238	45.3
1917	3,454	259	b/	3,195	27.3
1918	4,958	21	b/	4,937	41.6
1919	4,017	324	b/	3,693	30.7
1920	6,248	898	b/	5,350	43.9
Average	5,054	571	b/	4,483	27.8
1921	5,870	952	b/	4,918	39.8
1922	6,546	1,906	b/	4,640	36.8
1923	7,199	2,166	30	5,003	38.9
1924	5,842	1,488	4	4,350	33.2
1925	6,638	2,948	1	3,689	27.6
Average	6,419	1,892	7	4,520	35.2
1926	8,492	1,989	3	6,500	47.7
1927	5,228	1,435	1	3,792	27.3
1928	11,505	3,948	59	7,498	53.1
1929	5,519	1,477	b/	4,042	28.1
1930	9,506	3,950	b/	5,555	37.8
Average	8,050	2,560	13	5,490	38.8

Compiled by the Foreign Agricultural Service from official sources.
a/ Converted at 44 pounds to a bushel. b/ Not available.

Exports: In the four-year period 1928-1931 apple exports from Australia to Europe averaged 3,250,000 boxes a year or 38.1 per cent of the total crop. Exports in 1928 amounted to 4,060,000 boxes or 35.3 per cent of the crop; in 1929 to 1,477,000 boxes or 26.8 per cent; in 1930 to 4,318,000 boxes or 45.4 per cent; and in 1931 to 3,145,000 boxes or 41.2 per cent of the crop. Most of the exports, 65.1 per cent in this period, came from Tasmania; 15.5 per cent from Victoria; 11.5 per cent from Western Australia; 6.6 per cent from South Australia; and the small remainder of 1.3 per cent from New South Wales and Queensland. Approximately 57 per cent of the crop in Tasmania and 55 per cent of the Western Australia crop was exported during these four years. Exports from South Australia amounted to 24 per cent and those from Victoria to 23 per cent of the crops. The large dependence of Tasmania and Western Australia on the export market is due to the small population in these states.

Most of the Australian apple exports go to the United Kingdom about two-thirds of which are landed in London. In the four-year period 1928-1931 the United Kingdom received on an average 2,389,000 boxes or 73.5 per cent of the exports, and Continental European countries, notably Germany, took 861,000 boxes or 26.5 per cent. Continental Europe is an important outlet for apples from Western and Southern Australia. In the period under survey 69.9 per cent of the exports of Western Australia apples and 58.2 per cent of the exports of Southern Australia apples went to countries on the Continent. In the 1932 season exports from Australia to Europe were the highest on record reaching 4,416,000 boxes. Of this total 4,008,000 boxes went to the United Kingdom and 408,000 boxes to the Continent. (See table, page 44.) The export season for Australia is from February to July, the heaviest movement being from March to June. Australian apples are graded, wrapped and packed in boxes containing approximately 44 pounds or one bushel. The main difference between the pack and that of the American boxed states is that the fruit is generally in hardwood boxes without a bulge, but in the last few seasons an increase in the use of standard softwood boxes has occurred. Softwood lids have also been used with the hardwood boxes to provide a flexible, bulged lid.

New Zealand

Number of trees: The number of bearing apple trees in New Zealand in 1929-30 was placed at 1,305,800 trees. This is a decline of 31.5 per cent from the 1,906,000 trees reported in 1922-23. The majority of the removals appear to have been poorly located trees, unsatisfactory varieties, or removals incident to the thinning operations on maturing orchards. The area in commercial orchards in 1928-29, of which apples constituted almost 90 per cent, was 19,219 acres. About 17,705 acres were reported as bearing and 1,514 acres, or 8 per cent, non bearing. About half of the New Zealand orchards are less than 5 acres in extent and around 95 per cent are less than 20 acres. Approximately 71 per cent of the total commercial fruit area is in orchards of less than 20 acres. (See table, page 45.) The most important export varieties of apples grown in New Zealand are Sturmer Pippin and Jonathan. These two account for over half of the exports. Other important varieties are Delicious, Dunn's Favourite, Cox's Orange Pippin, Dougherty, Statesman, Cleopatra, and London Pippin. Less important varieties are Ballarat, Worcester Pearmain, Rome Beauty, Rokewood, Lord Wolseley, Newtown Pippin, Tasma, Stayman Winesap, and Spitzenburg.

AUSTRALIA AND NEW ZEALAND: Shipments of apples to Europe, total shipments, shipments by states, 1928 to 1931 and estimate for 1932

Whence consigned	1928	1929	1930	1931	Average 1928 to 1931	1932
	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes
To United Kingdom:						
Tasmania	2,372	624	2,176	1,893	1,766	3,052
Victoria	548	2	638	250	359	129
New South Wales	17	1	49	36	26	-
South Australia	197	-	284	17	125	372
Western Australia	5	170	48	231	113	455
Total Australia	3,139	797	3,195	2,427	2,389	4,008
New Zealand	870	640	938	755	801	1,292
To Continent:						
Tasmania	317	244	488	410	365	130
Victoria	250	-	235	95	145	-
New South Wales	-	-	-	-	-	-
South Australia	230	2	123	-	89	78
Western Australia	124	434	277	213	262	200
Total Australia	921	680	1,123	718	861	408
New Zealand	-	110	167	380	164	154
Total Europe:						
Australia	4,060	1,477	4,318	3,145	3,250	4,416
New Zealand	870	750	1,105	1,135	965	1,446
Grand total	4,930	2,227	5,423	4,280	4,215	5,862

Fruit Notes, Empire Marketing Board. Boxes of about 44 pounds.

NEW ZEALAND: Production and per capita consumption of apples, 1921 to 1930

Marketing year	Production	Exports	Total supply	Per capita consumption
	1,000 bushels	1,000 bushels	1,000 bushels	Pounds
1921	989	48	941	34.0
1922	990	162	828	29.3
1923	1,469	114	1,355	47.0
1924	1,397	211	1,186	40.3
1925	1,563	194	1,369	45.7
Average	1,282	146	1,136	39.4
1926	1,935	659	1,276	41.8
1927	1,660	482	1,178	37.9
1928	2,199	889	1,310	41.3
1929	2,067	861	1,206	37.4
1930	2,182	1,170	1,012	30.8
Average	2,008	812	1,196	37.8

Compiled by the Foreign Agricultural Service from official sources. Boxes of 44 pounds.

NEW ZEALAND: Apple trees, 1921-22 to 1929-30

Year	Bearing trees	Year	Bearing trees
1921-22	1,604,000	1926-27	1,430,500
1922-23	1,906,000	1927-28	1,443,500
1923-24	1,880,400	1928-29	1,429,300
1924-25	1,845,300	1929-30	1,305,800
1925-26	1,624,200		

Agricultural and Pastoral Production for New Zealand.

NEW ZEALAND: Exports of apples by countries of destination, 1928-1930

Country	Exports		
	1928	1929	1930
	Boxes	Boxes	Boxes
United Kingdom	780,879	604,938	862,685
Canada	11,400	10,818	11,874
Denmark	-	383	-
Germany	-	42,695	72,685
Netherlands	-	50,212	78,684
Argentina	21,538	94,199	-
Brazil	33,501	39,489	23,764
Uruguay	34,515	14,075	117,113
Other countries	6,620	3,899	2,562
Total	888,453	860,708	1,169,367

Statistical Report on Trade and Shipping, Part I, 1930. Converted to boxes of 44 pounds.

NEW ZEALAND: Imports of apples by countries of origin, 1928-1930

Country	Imports		
	1928	1929	1930
	Boxes	Boxes	Boxes
Canada	22,603	31,702	27,656
Australia	4	-	14
United States	331	1,115	2,282
Other countries	-	100	-
Total	22,938	32,917	29,952

Statistical Report on Trade and Shipping, Part I, 1930. Converted to boxes of 44 pounds.

Production: Although the New Zealand apple acreage has diminished considerably in the last ten years, apple production has increased rapidly. In 1921 about 989,000 bushels of apples were harvested; by 1925 the amount reached 1,563,000 bushels, and in 1928 the total was 2,199,000 bushels. Production has exceeded 2,000,000 bushels since that year. In the five-year period 1921-1925 production averaged 1,282,000 bushels and in the five-year period 1926-1930 the average was 2,008,000 bushels. (See table page 41.) Most of the New Zealand apples are produced in the Nelson, Auckland, Otago, and Hawke's Bay provinces. Some apples are also grown in the Canterbury, Marlborough, and Wellington provinces. Over half of the fruit exported comes from the Nelson district. Hawke's Bay and Auckland supply most of the remainder. New Zealand apples are carefully graded and packed. The standard Canadian or American apple box is used. The grading and packing is much the same as the Western boxed-apple pack of the United States.

Consumption: Owing to the increased exports from New Zealand, the per capita consumption of apples declined from an average of 39.4 pounds in the five-year period 1921 to 1925 to 37.8 pounds in the five-year period 1926 to 1930. The per capita consumption in New Zealand compares favorably with that of most producing countries (See tables, pages 8, 44.) Small quantities of apples are imported by New Zealand after the domestic crop is off the market. The imports averaged during the three-year period 1928-1930 about 28,600 boxes, of which Canada supplied 27,300 boxes and the United States 1,200 boxes. (See table, page 45.)

Exports: Shipments of apples from New Zealand to overseas markets have increased rapidly in the last decade. Exports grew from 48,000 boxes in 1921 to 1,267,000 boxes in 1931. During the four-year period 1928-1931 exports to Europe averaged 965,000 boxes, of which 801,000, or 83.0 per cent, were shipped to the United Kingdom and 164,000, or 17.0 per cent, to the Continent. In the 1932 season just closed exports of apples from New Zealand to Europe eclipsed all former records. The total was 1,446,000 boxes of which 1,292,000 boxes went to the United Kingdom and 154,000 boxes to the Continent. Some New Zealand fruit is also shipped to South American countries. (See tables, pages 44, 45.) In 1928 these exports amounted to 90,000 boxes; in 1929 to 54,000 boxes; in 1930 to 157,000 boxes; and in 1931 to 46,000 boxes. The decline was the result of adverse exchange rates and the fact that Argentina has placed a duty on New Zealand fruit. Canada was supplied with 17,000 boxes in 1931, and attempts are being made to further expand the Canadian market for New Zealand apples. Apples start to move out of New Zealand in the month of February, increase rapidly in March and April, reach a peak in May, and practically cease by the end of July. (See table, page 47.) During the 1931 season shipments started earlier than in either 1929 or 1930 and were practically finished by July. The ports of export are Wellington, Auckland, Nelson, and Lyttleton. In 1931, shipments through Wellington amounted to 1,070,000 boxes, Auckland 118,000, Nelson 50,000 and Lyttleton 29,000 boxes.

The bulk of the New Zealand apple crop is marketed by the Fruit Export Control Board of New Zealand, a cooperative institution. This organization markets practically all the fruit produced in New Zealand except that of the Otago district.

NEW ZEALAND: Exports of fresh apples by months, 1929 to 1931

Month	1929	1930	1931	1932
	Boxes	Boxes	Boxes	Boxes
January	-	5	2	2
February	99	205	24,577	11,452
March	80,072	138,675	89,637	199,970
April	196,311	195,955	185,809	536,473
May	245,629	679,722	663,326	586,244
June	208,199	132,581	209,867	a/
July	129,792	21,548	4,994	a/
August	324	332	488	a/
September	212	158	566	a/
October	23	54	264	a/
November	45	112	139	a/
December	3	22	52	a/
Total	860,709	1,169,369	1,179,721	b/1,334,141

Monthly Abstract of Statistics. Converted to boxes of 44 pounds.
a/ Not yet available. b/ Total for 5 months only.

ITALY: Per capita consumption of apples, 1928-29 to 1930-31

Year	Production	Exports	Total supply	Per capita consumption
	Bushels	Bushels	Bushels	Pounds
1928-29	12,978,218	1,531,265	11,446,953	12.2
1929-30	9,349,399	1,068,442	8,280,957	8.8
1930-31	9,288,122	2,535,233	6,752,889	6.9

Compiled by Foreign Agricultural Service from official sources. Bushels of 44 pounds.

Italy

Production: Italy is an important producer of citrus fruits, grapes, nuts and olives, but the production of apples and pears also assumes considerable importance. Apple production in Italy in the three-year period 1928-29 to 1930-31 averaged 10,538,000 bushels. (See table, page 47.) The most important area is in northern Italy, especially in the territory of Trentino (Tyrol) and in the provinces of Piedmont and Lombardy. The apples of Trentino offer some of the strongest competition with American apples of any produced in Europe. The apple-growing region in the Tyrol centers around Bolzano in the Adige Valley and extends north to Merano, a distance of 25 miles. The valley varies from one to five miles in width. The bulk of the fruit grown south of Bolgano; i.e., from Bessanone to Verona and Venice, consists of grapes. The Bolzano district ships from 500,000 to 2,000,000 bushels of apples a season. The fruit is well packed and sent to all parts of Europe. At Merano the famous White Winter Colville variety is grown as a super-luxury fruit on dwarf stock. The two most important varieties are Malterer Bohmer (Mantovano) and Canada Reinette. The former is a very attractive apple, having a yellow ground color with a heavy scarlet blush that covers half or more of the apple. It is of fair quality and keeps well. The Canada Reinette is a good quality, yellow apple and a fair keeper. Other important varieties are Golden Winter Pearmain, Rosso (red) Nobile, Gravenstein, Napoleon and White Winter Colville. Some of these, particularly Malterer Bohmer and Canada Reinette are grown in Piedmont. Growers in the Bolzano region have a cooperative organization and several well-equipped packing houses. The fruit is normally graded into two sizes. Whereas considerable attention is given to packing, less attention is given to cultural practices, but some improvement is also being made in this regard, according to Fred A. Motz, Fruit Specialist in Europe for the Foreign Service of the Department of Agriculture. Since new plantings are few, increased competition is not expected from this region in the near future.

Exports and imports: During the three-year period 1928-29 to 1930-31 exports from Italy have averaged 1,711,000 bushels a year, varying from 1,068,000 bushels in the 1929-30 season to 2,535,000 bushels in 1930-31. About 57.7 per cent of the exports are shipped to Germany, 14.4 per cent to Austria, 7.0 per cent to France, 2.8 per cent to the United Kingdom, and 18.1 per cent to all other countries. Apples move out of Italy the year around, but the bulk of the fruit is shipped from August through December. October is the peak month. (See tables, page 49.) No apple imports are reported. The per capita consumption of apples in Italy is low. The average for the three years 1928-29 to 1930-31 was 9.3 pounds. This is accounted for by the small apple production compared with the population of Italy and the almost negligible imports of this fruit. (See table, page 47.)

ITALY: Exports of apples by countries of destination, 1926-1928, and total exports for 1929-1930

Country	1926	1927	1928	1929	1930
	Bushels	Bushels	Bushels	Bushels	Bushels
Germany	1,689,028	500,183	1,028,781		
Austria	423,079	186,760	189,225		
France	139,336	92,628	159,192		
United Kingdom	113,732	32,197	11,113		
Czechoslovakia	86,846	81,991	60,837		
Switzerland	85,669	56,929	59,469		
Sweden	54,439	59,439	57,199		
Egypt	84,696	40,910	21,530		
Hungary	37,859	11,965	44,257		
Other countries	73,453	50,110	40,144		
Total	2,789,037	1,113,112	1,671,747	934,514	2,618,521

Movimento Commerciale del Regno D'Italia 1926, 1927, 1928 Statistico del commercio Speciale di Importazione e di Exportazione. December 1929-1930. Converted to boxes of 44 pounds.

ITALY: Exports of apples by months, 1928-29 to 1930-31

Month	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
July	27,537	55,496	40,695
August	196,836	182,120	327,814
September	201,260	97,523	366,129
October	515,054	163,085	877,565
November	351,443	204,401	605,177
December	135,102	122,846	158,170
January	21,114	55,751	40,920
February	22,788	92,668	46,417
March	35,043	54,128	50,280
April	19,140	33,244	14,475
May	4,169	6,849	(7,591 a/
June	1,779	331	(
Total	1,531,265	1,068,442	2,535,233

Statistica del Commercio Speciale di Importazione e di Esportazione.
a/ Total for May and June. Not available separately. Converted to bushels of 44 pounds.

Danube Basin

The Danube Basin is one of the chief regions producing a surplus of apples in Europe. The countries thus classed are Yugoslavia, Rumania, Hungary, and Bulgaria. The last named, however, is of little importance. In the five-year period 1926-1930 the net exports from this region have averaged 2,016,000 bushels, of which Yugoslavia supplied 62.7 per cent; Rumania, 27.9 per cent; Hungary, 9.1 per cent; and Bulgaria the small balance. (See table, page 51.) These exports were shipped mainly to nearby countries. Austria took 37.5 per cent; Germany, 33.3 per cent; Czechoslovakia, 18.7 per cent; and all others 10.5 per cent. Of the latter the most important were Poland, Greece, Switzerland, France, and Italy. (See tables, page 52.)

Yugoslavia: In the six-year period 1925-1930 the production of apples in Yugoslavia averaged 7,612,000 bushels a year. (See table page 51.) Yugoslavia is the most important exporter of apples among the Danubian countries. Exports in the three-year period 1928 to 1930 averaged 1,555,000 bushels. Most of the exports consist of bulk shipments and go mainly to Austria, Germany, and Czechoslovakia, with smaller amounts to Hungary, Italy, and Greece. Small quantities of dessert apples are imported. The import figures in 1929 revealed that 2,100 bushels came from the United States and in 1930 about 1,400 bushels, or roughly, half of the total imports. (See tables, page 53.) The Yugoslavian government is taking steps to insure a finer product for export as it is fully realized by the authorities that Austria, Germany, and Czechoslovakia, the chief foreign markets, produce large quantities of low-quality fruit which can be sold more cheaply than imported fruit. The per capita consumption of apples in Yugoslavia averaged about 15.7 pounds during the three-year period 1928-1930. (See table, page 52.)

Hungary: The total number of fruit trees in Hungary in 1929 was placed at 15,681,000, of which 16.6 per cent or 2,607,000 were apple trees. Hungary normally has a net export balance of apples but since the severe freeze during the winter of 1928-29 imports have exceeded exports. Some of the imports, especially those from Rumania, are imported in bulk and repacked for export. The chief foreign markets for Hungarian fruit are Germany, Austria, and Czechoslovakia. Exports averaged 675,000 bushels a year during the five-year period 1923-24 to 1927-28 against imports of 271,000 bushels for the same period. (See table, page 53.) Hungary is nearer to the chief consuming markets and in that respect has an advantage over other Danubian countries. In addition, the government is encouraging apple exports by making available cheap export credits, by reducing railroad rates, and by giving apple shipments preference over other freight.

Rumania: During the three-year period 1927 to 1929 Rumania produced on an average 15,503,000 bushels of apples. (See table, page 51.) The average apple exports from 1926 to 1930 amounted to 442,000 bushels a year. Practically all of the fruit is shipped out in bulk. The chief markets are Austria, Germany, Hungary, and Czechoslovakia. Exports were reduced during the last season (1931-32) owing to the large European crops and poor business conditions. (See table, page 52.)

DANUBE BASIN: Apple production in Yugoslavia, Rumania and Bulgaria, 1925 to 1930

Year	Yugoslavia	Rumania	Bulgaria
	Bushels	Bushels	Bushels
1925	8,418,000	a/	23,314
1926	9,783,000	a/	26,119
1927	8,585,000	19,576,000	98,275
1928	5,203,000	13,311,000	13,949
1929	6,936,000	13,628,000	81,886
1930	6,755,000	a/	a/

Compiled from official sources by the Foreign Agricultural Service.
Converted from quintals to bushels of 44 pounds.
a/ Not available.

DANUBE BASIN: Net exports of apples 1923 to 1930 and five-year average 1926-1930

Year	Yugoslavia	Rumania	Hungary	Bulgaria	Total Basin
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
1923	556	170	792	-	1,518
1924	266	516	551	-	1,333
1925	651	1,313	566	-	2,530
1926	1,097	772	210	-	2,079
1927	736	466	711	5	1,918
1928	486	752	185	-	1,423
1929	1,192	476	a/ 85	5	1,588
1930	2,816	351	a/ 105	10	3,072
Average 1926-1930	1,265	563	183	4	2,016

Reported by J. Barnard Gibbs, Assistant Agricultural Commissioner, Belgrade, Yugoslavia. Converted to bushels of 44 pounds.
a/ Net import into Hungary.

DANUBE BASIN: Net exports of apples approximated among specified countries, calendar years, 1925 to 1930 and five year average 1926-1930

Country	1925	1926	1927	1928	1929	1930	Average 1926-1930
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Austria	556	646	671	321	812	1,318	757
Germany	1,117	882	531	611	336	1,002	671
Czechoslovakia	466	261	516	361	246	491	376
Poland	326	225	130	105	140	100	140
Greece	30	70	35	15	20	10	30
Switzerland	-	-	10	10	-	-	5
France	-	-	-	-	-	5	-
Italy	a/ 5	a/ 35	5	a/ 20	25	55	5
Others	40	30	21	20	9	100	32
Total	2,530	2,079	1,919	1,423	1,588	3,081	2,016

Reported by J. Barnard Gibbs, Assistant Agricultural Attaché, Belgrade, Yugoslavia. Converted from quintals to bushels of 44 pounds. a/ Net import from Italy.

YUGOSLAVIA: Per capita consumption of apples

Year	Production	Imports	Exports	Total supply	Consumption
	Bushels	Bushels	Bushels	Bushels	Pounds
1928	5,203,000	459	505,391	4,698,068	15.7
1929	6,936,000	6,275	1,227,308	5,714,967	18.9
1930	6,755,000	2,340	2,932,564	3,824,776	12.5

Compiled by the Foreign Agricultural Service from official sources.

RUMANIA: Exports of apples by countries, 1926 to 1930 and five-year average 1926-1930

Country	1926	1927	1928	1929	1930	Average 1926-1930
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
Hungary	117,350	89,600	132,200	5	32,700	74,400
Others	504,550	303,200	489,700	310,895	229,100	367,500
Total	621,900	392,800	621,900	310,900	261,800	441,900

Reported by J. Barnard Gibbs, Assistant Agricultural Attaché, Belgrade, Yugoslavia. Converted from quintals to bushels of 44 pounds.

YUGOSLAVIA: Exports and imports of apples by countries of destination and origin, 1928-1930

Country	1928		1929		1930	
	Packed	Unpacked	Packed	Unpacked	Packed	Unpacked
	Boxes	Bushels	Boxes	Bushels	Boxes	Bushels
Exports:						
Austria	29,530	252,790	4,044	841,386	3,219	1,363,146
Germany	-	126,567	102	152,162	3,466	887,445
Czechoslovakia	5,167	34,098	1	146,683	525	404,819
Hungary	3,080	14,627	281	36,377	274	118,851
Italy	2,564	19,778	3,807	21,108	7,559	45,249
Greece	3,880	10,017	3,003	14,314	3,637	8,450
Other countries	55	3,238	1	4,039	105	84,819
Total	44,276	461,115	11,239	1,216,069	18,785	2,913,779
Imports:						
Austria	22	2	1,284	120	11	45
Italy	306	110	2,140	249	849	35
United States	9	-	2,109	-	1,386	-
Hungary	3	2	11	3	4	1
Germany	1	-	2	-	-	1
Czechoslovakia	1	1	1	2	1	1
Other countries	1	1	1	363	3	3
Total	343	116	5,548	727	2,254	86

Statistique du Commerce Extérieur. Converted to boxes and bushels of 44 pounds.

HUNGARY: Exports and imports of apples by countries of destination and origin, by marketing years, five year average 1923-24 to 1927-28 and annually 1928-29 to 1930-31

Country	Average 1923-24 to 1927-28	1928-29	1929-30 a/	1930-31 a/
	Bushels	Bushels	Bushels	Bushels
Exports:				
Austria	220,000	97,400	-	-
Czechoslovakia	135,000	98,950	-	-
Rumania	5	-	25	-
Yugoslavia	5	-	-	-
Germany	313,000	116,500	-	-
Italy	270	-	-	-
Switzerland	1,450	10,300	-	-
Others	5,670	4,250	-	-
Total	675,400	327,400	25	-
Imports:				
Austria	67,700	61,000	35,000	44,300
Czechoslovakia	3,400	180	-	-
Rumania b/	144,500	120,000	5	50,100
Yugoslavia	16,500	38,900	-	120,200
Germany	16,600	37,700	47,400	45,100
Italy	18,000	40,600	-	-
Switzerland	1,100	1,950	-	-
Others	3,300	1,270	1,895	15,800
Total	271,100	301,600	84,300	275,500

Reported by J. Barnard Gibbs, Assistant Agricultural Attaché, Belgrade, Yugoslavia. Converted from quintals to bushels of 44 pounds. a/ Trees injured by the severe winter of 1928-29. b/ Mostly reexported after being repacked. The 1931 crop in Hungary is said to be large enough to provide a large surplus for export.

Russia

Acreage and production: Before the World War there were about 1,739,000 acres of fruit trees in Russia, according to report number 111 from G. E. Luebben, Foreign Trade Commissioner. During the war period and in the Revolution of 1917 fruit plantings suffered from lack of attention in most parts of Russia. The area in 1924 was placed at 1,524,000 acres which was a decline of 215,000 acres from the pre-war period. However in 1928 fruit was embraced within the scope of the so-called "Five-Year Plan" and plantings appear to have increased a great deal since that time. Soviet figures place the total acreage in 1929 at 1,727,000 acres, or about the same as the pre-war figure. Of this amount 1,035,000 acres, or 60 per cent, were in apples. These were chiefly distributed as follows: 310,110 acres or 30 per cent in the Ukraine, 180,825 acres or 17.5 per cent in Central Black Soil, 129,997 acres or 12.5 per cent in Central Industrial, 84,740 acres, or 8.2 per cent in Lower Volga, 62,576 acres or 6 per cent in North Caucasus, and 266,750 acres or 25.8 per cent in the remainder of Russia. (See table, page 56.) It will be noticed from these figures that apple production in Russia is scattered over a wide area but from the standpoint of export production, southern Russia is the most important. Exports originate mostly in Crimea, Central Asia (Turkestan), Dagestan and Transcaucasia. Some exports are also made from Central Russia (i.e. from the Central Black Soil, Central Industria, and White Russia). In Crimea 35 per cent of the apples produced are of the Sinap variety. This is a good-shipping, long-keeping, medium-sized, yellow apple sometimes slightly blushed. Other varieties grown in this region and closely related to the Sinap are the Sari-Sinap, Sudak-Sinap, Kara-Sinap and Kandil-Sinap. The latter is similar to Sinap except larger and better colored. The Reinette-d'Orléans is also grown. This is a golden-yellow, well-blushed apple. The most important varieties grown in Central Asia are Champagner-Reinette, Golden Grimm, Reinette-d'Orleans and Reinette Simirenko. Many of the varieties grown in the Ukraine are of French origin. The most important export variety in Central Russia is the Antonowka which is an early, medium to large-sized, tart, yellow apple. It is a fall or winter apple in the north. On a basis of 2.457 metric tons per hectare (49.82 bushels per acre) the apple production in the U.S.S.R. in 1929 worked out at 51,566,000 bushels or about 15 pounds per capita. (See table, page 56.)

Proposed expansion: Prior to 1928 little attention was paid to fruit growing in the U.S.S.R. but in that year it was included in the "Five-Year Plan". The fruit plantings were reported to have increased from a total of 1,727,000 acres in 1929 to 2,606,000 acres in 1931. Just how much apples were expanded is not clear, but the original plan called for an expansion from 1,035,000 acres in 1929 to about 1,926,000 in 1933, an increase of 86 per cent. However, a new "Five-Year Plan" was formulated January 1, 1931, raising the total expansion in acreage from the 2,606,000 acres reported to be in fruit in 1931 to 11,000,000 acres, which expansion no doubt provides for an increase in the figures given above for apples. Should apple acreage expand in Russia to reach 2,000,000 acres and if production can be increased to the level for the United States as a whole, production will reach around 200,000,000 bushels or 55 pounds per capita. The "Plan" also calls for an improvement in the existing acreage. A nursery has been es-

tablished in Central Russia for propagating the chief American export apple varieties. Specialists are also being trained to assist in the development of the industry. Considerable attention is being paid to berries and grapes as they produce crops much more quickly than tree fruits.

Exports: About 90 per cent of the Russian fruit exports consist of apples. The balance is made up of grapes and pears. Germany takes around 60 per cent of the exports, Denmark 10 per cent, Sweden 9 per cent, the United Kingdom 6 per cent, Finland 5 per cent and other countries 10 per cent. In 1927-28, exports were said to have been about 350,000 boxes; by 1928-29, they reached 772,000; and in 1929-30, they amounted to 780,000 boxes. Exports during the present season have not been heavy, most of the fruit having been consumed on the domestic markets. Russian apple exports have shown much improvement in packing and grading in recent years. Standard northwestern boxes and, to a lesser degree, three-bushel barrels are used. With the exception of quality, the fruit compares favorably with that shipped from the United States and sells at somewhat lower prices. A good share of the fruit is shipped in bulk by rail to Leningrad where it is repacked and exported by water to nearby European countries. Fruit is also exported from Sebastopol, Crimea, by water to Hamburg. Two refrigerator ships are said to be operating on this route.

Although the Soviets plan to expand apple production, the consensus of opinion seems to be that exports, at least for the time being, will not increase a great deal. This is owing to the poor transportation system, the present limited production of exportable apples, and the recent policy of consuming more products at home. Even if the full program of the "Five-Year Plan" for fruit is consummated, Russia would have to produce several times the present quantity of apples grown before their per capita production would be equal to that of the United States.

RUSSIA: Estimated acreage and production of apples by regions in 1929 and the proposed expansion of acreage and production

Principal apple regions	Estimated		Proposed	
	Area	Production	Area	Production
	Acres	Bushels	Acres	Bushels
Principal export producing regions				
Ukraine	310,110	15,449,680	713,254	35,534,000
Crimea	13,825	688,762	27,304	1,360,000
North Caucasus	62,576	3,117,536	156,439	7,794,000
Dagestan	6,595	328,563	9,894	493,000
Transcaucasia	45,586	2,271,094	84,409	4,205,000
Central Asia (Turkestan)	10,793	537,707	19,966	995,000
Domestic producing regions				
Central Black Soil	180,825	9,008,702	251,115	12,511,000
Middle Volga	58,718	2,925,331	81,543	4,062,000
German Republic of Volga	8,231	,410,068	12,347	,615,000
Lower Volga	84,741	4,221,797	156,908	7,817,000
Central Industrial	129,997	6,476,450	195,258	9,728,000
Leningrad	41,498	2,067,430	38,419	1,914,000
Western	29,800	1,484,636	44,700	2,227,000
White Russia	39,734	1,979,548	79,467	3,959,000
Others	12,011	598,389	55,065	2,744,000
Total	1,035,040	51,565,693	1,926,088	95,958,000

Compiled in the Foreign Agricultural Service by Dr. L. Volin, Assistant Agricultural Economist, from an article entitled "Prospects for the Expansion of Apple Growing in the U.S.S.R." by F. D. Likhonas and printed in "Crops of the U.S.S.R., Materials for the State Plan of Agriculture in 1931 and Following Years" which was published by the Institute of Applied Botany and New Crop Introduction, 1930. The production was estimated at 2.457 metric tons per hectare or about 49.82 bushels of 44 pounds per acre. This compares with an average yield in the United States of about 100 bushels per acre.

a/ Calculated at 49.82 bushels per acre.

EXPORTING AND IMPORTING COUNTRIES

France

Production: Large quantities of fruit are produced in France, chief of which are apples, pears, cherries, plums, prunes, peaches, and berries. More apples are produced in France than in any other European country, but the bulk of the crop is cider fruit. Cider apples and pears have been one of the important crops of Brittany and Normandy for many years. The dessert apples are mainly produced in the Haut Rhin, Bas Rhin, and Moselle departments (Alsace-Lorraine) and in the Sarthe, Indre et Loire, Correze, and Puy de Dome departments. In 1929 the production of dessert apples in France amounted to 6,311,000 bushels, in 1930 to 4,282,000 bushels, and in 1931 to 7,707,000 bushels. The harvest of cider fruit is much heavier. The production in 1929 of cider apples and pears, figures for which are not given separately, amounted to 167,793,000 bushels, in 1930 to 59,893,000 bushels, and in 1931 to 132,421,000 bushels. Apples compose over half of the cider fruit production. These amounts are considerably below the totals reported for 1913 and 1921, in which years cider production reached 256,881,000 bushels and 208,776,000 bushels, respectively. (See tables, page 58).

Consumption: The per capita consumption of all apples and pears in France is very high, exceeding that of any other country in this survey. During the three-year period 1928-29 to 1930-31 the per capita consumption of cider apples and pears averaged 106.2 pounds. (Separate figures are not available). On the other hand the consumption of dessert apples is low, amounting to only an average of 7.0 pounds in these years. (See tables, page 60).

Exports and imports: Exports of dessert apples from France are not large, averaging about 210,000 bushels a year during the three seasons 1928-29 to 1930-31. In this same period exports of cider apples and pears averaged about 644,000 bushels. Imports of dessert apples during the three-year period averaged about 2,000,000 bushels a year and reached 3,138,000 bushels in 1930-31. Only small quantities of cider fruit are imported, the average for the period under survey being 14,800 bushels. The bulk of the French apple exports are made from October to January, whereas imports are spread over a longer period. The imports start with small quantities in July and August, but do not become heavy until October, after which they continue in fair volume until April or May. In years of large French crops, there is a market for only a limited amount of high-grade dessert fruit prior to the Christmas holidays. French apple exports go to nearby European countries, mainly the United Kingdom and Germany. Apples are imported principally from the United States, Belgium, Switzerland, Italy and the Netherlands. (See tables, pages 59,60,61). Imports from the United States have increased very rapidly in the last few years. During the present season a large quantity of low-quality and poor-condition fruit has been shipped to France from the United States. Since France has ample supplies of domestic cooking apples, only the best, well-colored apples, in sizes ranging from $2\frac{1}{2}$ inches and up, can be sold to advantage in that country.

FRANCE: Production of cider apples and pears by principal departments, 1913,1921, 1928-1931

Department	1913	1921	1928	1929	1930 a/	1931 a/
	1,000 Bushels	1,000 Bushels	1,000 Bushels	1,000 Bushels	1,000 Bushels	1,000 Bushels
Brittany:						
Ille et Vilaine..	44,593	42,589	20,356	24,301	3,582	22,547
Morbihan	49,536	11,925	13,407	14,956	10,924	14,280
Loire Inférieure.	9,291	3,878	2,231	8,019	326	2,255
Côtes de Nord....	14,530	15,031	5,136	7,591	2,004	8,518
Finistère	4,249	4,334	7,015	4,360	3,507	5,010
Total Brittany	122,199	77,757	48,145	59,527	20,344	52,610
Normandy:						
Manche	33,069	29,892	16,033	17,036	10,773	20,042
Calvados	19,086	22,672	6,869	16,158	10,021	17,286
Orne	15,583	15,910	3,335	12,142	1,603	5,010
Eure	7,223	5,438	3,094	4,924	3,006	4,259
Seine Inférieure.	8,588	15,031	4,259	501	4,008	5,511
Total Normandy	83,549	88,943	33,590	50,761	29,411	52,108
Other departments	51,132	42,075	12,253	57,505	10,138	27,703
Total	256,880	208,775	93,988	167,793	59,893	132,421

Compiled by Foreign Agricultural Service from Statistique Agricole Annuelle, Journal Officiel, and Bulletin de l'Office de Renseignements Agricoles.
a/ Preliminary.

FRANCE: Production of dessert apples, by principal departments, 1913, 1921, 1929-1931

Department	Dessert apples and pears			Dessert apples		
	1913	1921	1931	1929	1930	1931 a/
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
Moselle	-	929,438	1,497,626	483,009	182,880	1,070,735
Bas Rhin	-	880,838	1,737,625	603,258	444,927	1,208,019
Sarthe	932,946	528,653	410,858	5,010	501	400,837
Indre et Loire	130,271	122,606	190,397	350,732	110,229	150,313
Ille et Vilaine....	1,478,085	601,256	340,710	450,939	160,334	275,573
Correze	200,418	150,313	225,471	125,260	-	150,313
Haut Rhin	1,954	449,286	813,999	262,548	138,289	569,186
Finistère	11,625	18,036	130,271	75,158	60,127	110,229
Morbihan	345,472	150,313	350,732	125,260	200,419	250,524
Loire Inférieure...	765,648	395,827	42,588	125,260	37,577	42,588
Puys de Dome	54,164	71,499	474,791	275,573	312,401	347,024
Others	5,554,086	4,234,437	4,651,203	3,428,607	2,634,450	3,131,538
Total	9,474,669	8,532,502	10,866,271	6,310,614	4,282,134	7,706,879

Compiled by Foreign Agricultural Service from Statistique Agricole Annuelle, Journal Officiel, and Bulletin de l'Office de Renseignements Agricoles.
a/ Preliminary.

FRANCE: Imports of apples and pears by months, 1928-29 to 1930-31

Month	1928-29 Table apples	1928-29 Table pears	1928-29 Cider apples and pears	1929-30 Table apples	1929-30 Table pears	1929-30 Cider apples and pears	1930-31 Table apples	1930-31 Table pears	1930-31 Cider apples and pears
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
July..	24,175		-	2,210	7,526	-	11,940	29,522	666
Aug...	84,987		-	4,068	30,889	-	14,109	48,576	541
Sept..	82,352		737	1,628	29,577	120	68,132	116,313	982
Oct...	283,136		2,019	184,775	56,989	145	217,829	117,255	2,455
Nov...	298,733		706	293,607	24,576	8,267	499,016	66,173	9,109
Dec...	238,603		105	174,188	12,246	4,740	634,844	31,927	12,686
Jan...	251,660	4,885	-	97,709	9,365	15	374,641	43,065	-
Feb...	247,201	4,414	5	146,090	5,096	-	391,346	29,121	65
Mar...	309,100	2,029	-	192,962	4,144	-	336,737	19,225	5
April.	140,428	1,999	-	105,932	5,141	40	254,561	23,223	-
May...	40,144	3,021	-	37,353	3,958	-	227,790	14,741	-
June..	14,320	621	-	19,496	1,744	30	106,928	6,579	-
Total.	a/ 2,031,808		3,572	1,258,018	191,251	13,357	3,137,873	545,720	26,509

Statistique Mensuelle du Commerce Extérieur de la France. a/ Total of table apples and pears. Converted to bushels of 44 pounds.

FRANCE: Exports of apples and pears by months, 1928-29 to 1930-31

Month	1928-29 Table apples	1928-29 Table pears	1928-29 Cider apples and pears	1929-30 Table apples	1929-30 Table pears	1929-30 Cider apples and pears	1930-31 Table apples	1930-31 Table pears	1930-31 Cider apples and pears
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
July..	1,578		-	346	9,249	351	261	1,633	-
Aug...	19,395		-	2,180	157,148	95	2,019	26,736	115,152
Sept..	30,248		55	11,294	122,035	817	9,990	17,371	5,982
Oct...	28,930		60,095	22,948	20,473	206,095	51,197	7,240	177,600
Nov...	38,009		306,945	83,499	21,219	27,913	52,510	7,536	845,403
Dec...	28,444		119,940	43,080	54,769	21,665	38,225	3,016	67,897
Jan...	8,818	4,314	3,036	41,281	20,927	48,606	22,076	1,694	1,448
Feb...	9,820	1,208	1,167	37,548	7,105	-	5,396	686	556
March.	3,252	541	-	19,796	8,317	251	34,402	661	326
April.	5,141	321	4,129	7,450	932	11,439	7,967	636	987
May...	2,936	95	1,348	2,730	276	-	4,444	391	1,132
June..	757	1,117	100	416	150	15	1,293	341	1,107
Total.	a/ 184,925		496,816	272,568	442,600	317,247	229,780	67,941	1,117,590

Statistique Mensuelle du Commerce Extérieur de la France. a/ Total of table apples and pears. Not reported separately until January 1929. Converted to bushels of 44 pounds.

FRANCE: Per capita consumption of table apples, 1928-29 to 1930-31

Marketing year	Production	Imports	Exports	Total supply	Per capita consumption
	Bushels	Bushels	Bushels	Bushels	Pounds
1928-29	3,737,272	1,605,125	134,813	5,237,584	5.6
1929-30	6,261,817	1,258,017	272,569	7,247,265	7.8
1930-31	4,276,364	3,137,871	229,778	7,184,457	7.6

Compiled by the Foreign Agricultural Service from Statistique Mensuelle du Commerce Extérieur de la France, and Journal Officiel, February 24, 1931.

FRANCE: Per capita consumption of cider apples and cider pears, 1928-29 to 1930-31

Marketing year	Production	Imports	Exports	Total supply	Per capita consumption
	Bushels	Bushels	Bushels	Bushels	Pounds
1928-29	93,988,102	2,333	324,511	93,665,924	100.5
1929-30	145,228,364	8,725	208,201	145,028,888	155.1
1930-31	59,893,064	17,316	729,988	59,180,392	62.9

Compiled by the Foreign Agricultural Service from Statistique Mensuelle du Commerce Extérieur de la France, and Journal Officiel, February 24, 1931.

FRANCE: Exports of apples and pears by countries of destination, 1926-28, and total exports, 1929-1931

Country	1926		1927		1928	
	Table	Cider	Table	Cider	Table	Cider
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
United Kingdom	510,440	588,988	331,717	188,478	122,706	5,201
Germany	80,593	621,937	117,951	495,964	42,023	365,452
Belgium	111,177	97,178	88,535	195,738	39,392	118,156
Netherlands	-	-	-	2,129	-	-
Switzerland	95,579	7,696	114,088	87,994	63,918	6,859
Spain	6,183	160	9,169	-	5,471	-
Italy	-	-	77,141	-	182,496	-
Other countries	87,628	50	152,127	25,053	88,900	2,185
Total	891,600	1,315,839	890,728	995,356	544,906	497,843

Total exports	1929	1930	1931
Table apples	194,070	262,863	206,922
Table pears	392,489	101,241	114,414
Table apples and pears	586,559	364,104	321,336
Cider apples and pears	266,719	1,172,345	1,683,261

Compiled by Foreign Agricultural Service from Tableau Général du Commerce, 1926-1928, and Statistique Mensuelle du Commerce Extérieur, 1929-1931. Converted to bushels of 44 pounds.

Belgium

Acreage: The fruit industry in Belgium has been steadily increasing in the last 50 years, according to a report from William H. Beach, American Consul at Antwerp. In 1880 there were 93,860 acres under fruit; by 1900 the area had increased to 123,500 acres; and at the present time the total is estimated at 165,490 acres. The main fruit-growing provinces are Liege, Limberg, Brabant, East Flanders, and Hainaut. The first three are the most important for apples.

Exports and imports: Sufficient quantities of fruit are normally produced in Belgium to satisfy most of the home-market demand and also to leave a surplus for export. Pears are the leading tree fruit exported, but considerable quantities of apples are also shipped to nearby countries. In the five-year period 1926 to 1930 apple exports averaged 1,153,000 bushels and imports 419,000 bushels. Considerable quantities of imported fruit are also reexported. During the period under discussion exports were divided 55.7 per cent to Germany, 11.5 per cent to the United Kingdom, 14.8 per cent to the Netherlands, 9.4 per cent to France, and 8.6 per cent to all other countries. (See table page 62). In years of large crops exports assume importance from September to April, but ordinarily the bulk of the exports are made by February. On an average during the years, 1926 to 1930, the United States supplied 40.8 per cent of the apple imports, France 28.4 per cent, the Netherlands 10.3 per cent, Canada 7.2 per cent, and all others 13.3 per cent. In years of small domestic crops Belgian imports are heavy from October to March, although considerable quantities are also imported in April and May. (See tables, page 63). The most popular sizes of imported apples in Belgium are 138's and 150's in boxed apples and $2\frac{1}{2}$ inches in barreled fruit. A full red apple is preferred. The high Belgian import duty on wrapped, boxed apples and pears, amounting to 150 francs per quintal ($1.89 per 100 lbs.), practically precludes the importation of apples or pears in that package. The duty on barreled fruit where shredded oiled paper is used is 5 francs and without paper 3 francs per quintal (6.3¢ or 3.8¢ per 100 lbs.).

FRANCE: Imports of dessert apples, by countries of origin, total imports of dessert pears and total imports of cider apples and cider pears, 1929-1931

Country	1929	1930	1931 a/
	Bushels	Bushels	Bushels
Dessert apples:			
Great Britain	51,748	162,604	92,889
Netherlands	111,232	57,330	270,188
Belgium	787,292	627,819	658,233
Switzerland	197,838	71,870	415,281
Italy	98,165	284,283	175,491
United States	307,677	573,521	1, 733,365
Canada	48,631	108,035	100,239
Other countries	57,740	189,761	180,006
Total dessert apples	1,660,323	2,075,223	3,625,692
Total dessert pears	178,773	464,283	1,097,845
Total cider apples			

BELGIUM: Exports of apples by months to principal countries of destination, July - June, 1928-29 to 1930-31

Month	Germany	United Kingdom	Nether-lands	France	Poland	Czecho-slovakia	Others	Total
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
1928-29:								
July	987	967	937	-	-	-	30	2,921
August.....	37,553	21,184	7,040	-	-	-	2,881	68,658
Sept.	15,397	20,212	15,773	-	-	-	7,040	58,422
October....	64,149	30	15,718	-	-	-	5,005	84,902
November...	10,717	10	9,585	-	-	-	5,592	25,904
December...	49,002	90	3,557	-	-	-	888	53,537
January....	11,258	-	411	-	-	-	1,248	12,917
February...	4,835	-	240	-	-	-	401	5,476
March	31,836	-	2,991	-	-	-	772	35,599
April.....	18,539	-	9,294	-	-	-	1,503	29,336
May	4,023	-	1,157	-	-	-	612	5,792
June	5	-	175	-	-	-	271	451
Total....	248,301	42,493	66,878	-	-	-	26,243	383,915
1929-30:								
July	235	1,829	356	-	-	-	-	2,420
August.....	20,227	31,155	7,190	1,568	-	-	1,514	61,654
September..	63,267	26,004	24,321	18,123	-	-	5,536	137,251
October....	133,979	33,670	36,676	120,251	-	-	4,130	328,706
November...	180,086	11,389	36,511	144,977	-	-	14,034	386,997
December...	105,425	2,811	6,980	59,484	-	-	27,772	202,472
January....	34,492	-	3,978	50,014	8,954	18,033	9,184	124,655
February...	136,144	-	3,292	53,487	47,053	37,914	43,155	321,045
March.....	193,453	-	16,605	37,198	99,412	43,416	19,500	409,584
April	45,866	-	11,564	9,380	37,418	2,786	9,369	116,383
May	251	-	386	792	-	-	300	1,729
June	-	-	-	14,225	-	-	45	14,270
Total....	913,425	106,858	147,859	509,499	192,837	102,149	134,539	2,107,166
1930-31:								
July	526	15	160	-	-	-	26	727
August.....	4,600	2,916	336	416	-	-	99	8,367
September..	9,224	75	1,714	2,034	-	-	9,555	22,602
October....	39,417	-	4,259	3,172	-	-	125	46,973
November...	9,264	-	2,215	4,580	-	-	190	16,249
December...	8,763	5	1,087	3,352	-	-	126	13,333
January....	656	-	541	1,102	686	-	733	3,718
February...	2,094	-	757	1,774	-	-	721	5,346
March.....	9,981	-	436	1,648	-	-	191	12,256
April.....	-	-	35	441	-	-	225	701
May.....	5	-	251	50	-	-	115	421
June.....	5	-	10	5	-	-	221	241
Total....	84,535	3,011	11,801	18,574	686	-	12,327	130,934

Compiled by Foreign Agricultural Service. Mensuel du Commerce avec les Pays étrangers.
Converted to bushels of 44 pounds.

verted to bushels of 44 pounds.

BELGIUM: Imports of apples by months from principal countries of origin, July - June, 1928-29 to 1930-31

Month	United States	France	United Kingdom	Nether-lands	Canada	Others	Total
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
1928-29:							
July	-	20	225	65	-	16	326
August	-	40	316	616	-	256	1,228
September	-	8,778	135	1,849	-	36	10,798
October	13,804	94,893	551	5,757	-	2,240	117,245
November	52,915	18,418	1,709	1,633	-	4,004	78,679
December	49,859	566	511	496	-	597	52,029
January	60,060	371	406	1,253	-	1,628	63,718
February	39,978	436	2,180	481	-	9,735	52,810
March	52,705	10	491	661	-	48,461	102,328
April	41,246	271	706	456	-	19,571	62,250
May	12,391	150	170	2,791	-	1,674	17,176
June	3,522	-	992	1,343	-	1,949	7,806
Total	326,480	123,953	8,392	17,401	-	90,167	566,393
1929-30:							
July	5	45	316	170	-	5	541
August	-	271	35	882	-	20	1,208
September	-	792	30	3,046	-	95	3,963
October	-	44,864	5	14,946	5	356	60,176
November	631	7,601	75	37,403	-	1,684	47,394
December	190	431	30	21,505	20	131	22,307
January	55	80	185	5,772	-	31	6,123
February	1,939	15	296	4,865	-	20	7,135
March	9,815	40	942	2,771	21,475	40	35,083
April	1,869	50	2,154	3,106	8,623	327	16,129
May	396	20	1,809	2,465	20	20	4,730
June	-	150	1,438	3,457	15	11	5,071
Total	14,900	54,359	7,315	100,388	30,158	2,740	209,860
1930-31:							
July	-	15	566	656	10	1	1,248
August	25	316	306	1,844	10	946	3,447
September	-	546	6,428	5,191	-	3,127	15,292
October	73,669	32,177	33,545	7,320	30,474	4,569	181,754
November	154,938	7,235	29,597	2,701	50,751	12,796	258,018
December	171,202	416	15,828	6,779	38,831	1,729	234,785
January	105,360	396	1,859	4,570	138,579	1,688	252,452
February	53,396	271	887	4,825	61,894	18,343	139,616
March	41,632	286	1,197	7,245	3,783	12,561	66,704
April	22,933	356	927	23,088	1,132	10	48,446
May	1,458	877	2,450	22,943	-	265	27,993
June	-	491	1,218	3,272	927	2,209	8,117
Total	624,613	43,382	94,808	90,434	326,391	58,244	1,237,872

Compiled by Foreign Agricultural Service. Mensuel du Commerce avec les Pays étrangers.

Converted to bushels of 44 pounds.

The Netherlands

The apple orchards of Holland are largely located in the provinces of Gelderland, Utrecht, and Zeeland. Of the three, Zeeland is said to be the most progressive. About 7,000 acres in this province are given over to fruit growing. The newer plantings are similar to those found in America. Dutch orchards mostly run from 15 to 25 acres. Apples and pears predominate with a scattering of cherries, plums, and peaches. Boskoop and Canada Reinette are two important apple varieties grown. Intensive cultural practices are employed and in most cases the orchards are given good care. Up-to-date practices are being adopted. Better market varieties are rapidly displacing those of less commercial importance and there is a definite policy on foot to improve the standards of the fruit. The fruit is usually packed loosely in barrels, boxes, and bags. Cooperative packing and selling organizations are increasing rapidly throughout the Netherlands. Fruits and vegetables of all kinds are sold and shipped through these associations. On the whole their packing plants are large, substantially constructed, and fully equipped with modern machinery to facilitate the grading and handling of the product. Fruit production, especially of apples, is reported to be flourishing in the Netherlands, and there is every reason to expect increased competition from this quarter.

Exports and imports: In years of good crops the Netherlands exports considerable quantities of apples, and imports constitute only a minor part of the fruit consumed. However, when the reverse is the case, imports increase several fold. In 1928-29 the Netherlands imported 797,000 bushels of apples, compared with 290,000 bushels in 1929-30 and 1,288,000 bushels in 1930-31. On an average during these three years, takings from the United States have amounted to 539,000 bushels or 68.1 per cent of the total and imports from Belgium, 89,000 bushels or 11.2 per cent. Canada, Australia, New Zealand, and the United Kingdom supplied most of the remaining 20.7 per cent. Imports from the United Kingdom were mostly reexported fruit. Imports of apples are made the year around, but most of the fruit arrives in the period, October to March. In years of good crops most of the fruit is imported after the first of the year when the domestic stock is depleted. Large quantities of imported fruit are reexported to nearby countries. (See table, page 66). The most popular sizes for imported apples are 138's and 150's in boxes and $2\frac{1}{2}$ inch in barreled apples. Exports of apples from Holland in 1928-29 amounted to 261,000 bushels compared with 2,817,000 bushels in 1929-30, a year when domestic crops were large, and to 94,097 bushels in 1930-31 when the crop was small. The bulk of the exports were shipped to Germany. Small quantities are taken by Belgium, France, Poland, Czechoslovakia, and the Scandinavian countries. Exports in the three years to Germany averaged 667,000 bushels or 63.1 per cent of the total exports. Exports are heaviest from September to January, November being the peak month. (See table, page 65).

NETHERLANDS: Monthly exports of apples by principal countries of destination, 1928-29 to 1930-31

Month	Germany	Belgium	France	Poland	Others	Total
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
1928-29:						
July	1,353	50	-	-	-	1,403
August	11,524	100	-	-	301	11,925
September	44,643	1,052	-	-	1,904	47,599
October	84,376	1,804	-	-	1,102	87,282
November	49,654	802	-	-	350	50,806
December	28,509	501	-	-	401	29,411
January	6,413	-	-	-	652	7,065
February	2,956	-	-	-	201	3,157
March	5,361	-	-	-	652	6,013
April	6,814	-	-	-	601	7,415
May	3,908	2,255	-	-	100	6,263
June	1,754	1,002	-	-	50	2,806
Total	247,265	7,566	-	-	6,314	261,145
1929-30:						
July	1,002	100	-	-	-	1,102
August	19,040	150	-	-	5,311	24,501
September	101,562	-	-	-	28,810	130,372
October	387,208	-	-	-	106,522	493,730
November	540,728	-	-	-	702,415	1,243,143
December	392,168	-	-	-	118,347	510,515
January	124,309	-	10,322	44,142	29,912	208,685
February	40,033	-	3,407	51,608	19,942	114,990
March	49,303	-	1,002	12,326	2,004	64,635
April	16,384	-	-	2,104	1,303	19,791
May	3,307	-	50	-	902	4,259
June	451	-	-	-	551	1,002
Total	1,675,495	250	14,781	110,180	1,016,019	2,816,725
1930-31:						
July	701	50	50	-	51	852
August	8,768	601	100	-	151	9,620
September	8,668	2,806	-	-	100	11,574
October	25,253	5,511	-	-	652	31,416
November	10,622	451	-	-	651	11,724
December	9,871	451	-	-	250	10,572
January	6,413	-	-	-	351	6,764
February	3,257	-	-	-	451	3,708
March	2,706	-	-	-	551	3,257
April	1,303	1,754	-	-	100	3,157
May	300	752	-	-	100	1,152
June	200	50	-	-	51	301
Total	78,062	12,426	150	-	3,459	94,097

Nederland Maandstatistiek, 1e Deel. Converted to bushels of 44 pounds.

NETHERLANDS: Monthly imports of apples by principal countries of origin, 1928-29 to 1930-31

Month	United States	Belgium	United Kingdom	Germany	Canada	Australia & N.Zea.	Others	Total
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
1928-29:								
July	601	802	5,261	-	-	401	1,252	8,317
August	4,409	2,004	1,353	-	-	251	2,806	10,823
September	9,269	11,123	200	-	-	-	1,955	22,547
October	39,132	11,624	752	-	-	-	19,941	71,449
November	73,052	8,367	501	-	-	-	13,830	95,750
December	75,107	2,856	5,762	-	-	-	7,866	91,591
January	136,284	4,109	-	-	-	-	1,403	141,796
February	36,075	1,954	-	-	-	-	351	38,380
March	99,407	6,163	-	-	-	-	10,021	115,591
April	79,165	10,221	-	-	-	-	2,005	91,391
May	64,534	1,653	-	-	5,261	-	2,005	73,453
June	27,908	-	-	-	150	5,061	2,656	35,775
Total	644,943	60.876	13,829	-	5,411	5,713	66,091	796,863
1929-30:								
July	952	50	351	-	-	4,209	851	6,413
August	2,054	2,706	651	-	-	3,858	952	10,221
September	802	14,430	301	-	-	701	50	16,284
October	3,006	27,958	451	-	-	150	51	31,616
November	902	33,470	150	351	-	-	100	34,973
December	7,065	3,056	1,052	50	251	-	-	11,474
January	6,213	-	551	-	-	-	2,555	9,319
February	12,777	3,858	301	-	-	-	150	17,086
March	22,497	13,228	852	-	-	-	550	37,127
April	29,211	15,682	2,104	-	-	-	502	47,499
May	7,917	50	10,722	-	-	6,914	1,654	27,257
June	4,560	-	1,102	-	-	33.119	2,305	41,086
Total	97,956	114,488	18,588	401	251	48,951	9,720	290,355
1930-31:								
July	802	100	1,102	-	-	19,791	652	22,447
August	1,052	501	651	-	-	16,134	3,908	22,246
September	33,670	1,203	2,505	-	-	-	17,787	55,165
October	63,633	9,720	21,094	2,756	-	1,954	23,749	122,906
November	111,733	19,791	28,109	2,605	-	551	27,057	189,846
December	178,472	16,134	2,756	2,956	44,342	50	11,825	256,535
January	208,134	13,929	-	-	5,211	-	10,372	237,646
February	85,328	16,885	-	-	902	-	6,113	109,228
March	67,391	12,676	-	-	1,403	-	7,766	89,236
April	84,476	50	-	-	-	-	3,608	88,134
May	25,203	-	8,066	100	-	11,574	2,556	47,499
June	14,480	150	2,706	-	-	26,706	3,407	47,449
Total	874,374	91,139	66,989	8,417	51,858	76,760	118,800	1,288,3[illegible]

Nederland Maandstatistiek, 1e Deel. Converted to bushels of 44 lbs.

Switzerland

Switzerland is one of the important surplus fruit-producing countries of Europe. The 1929 census listed 12,000,000 bearing fruit trees, according to a report from Mr. Fred A. Motz, Fruit Specialist in Europe for the Foreign Agricultural Service of the Department of Agriculture. About 40 per cent of these were apples, 30 per cent pears and the balance of 30 per cent mostly plums and cherries. Fruit growing is quite general all over Switzerland. Trees have been planted more or less promiscuously by the peasants in gardens, fields, and pastures, along roadsides, and over the mountainsides. Orcharding is generally treated as an auxiliary to the dairy and stock industry, but apples are grown commercially in the Lake Constance area and in the cantons of Zurich, Lucerne, and Valais. The Lake area is the most important. Considerable expansion is taking place in other districts, and orchards are replacing vineyards to a large extent. The industry in southern Switzerland is rapidly developing and assuming more of a commercial aspect as it is known in the United States. In the canton of Valais many new plantings have been made in recent years. This district specializes in fancy fruit for export to France. The most important apple varieties are Boskoop, Golden Pearmain, Danzega, and Kantapfel. In the canton of Berne, the Gravenstein is the most important variety.

The Swiss Government has recently inaugurated an extensive program to foster and stimulate fruit production. Funds have been made available to finance cooperatives, to construct packing houses and cold storages, and to assist in the production and marketing of fruit. Government inspection has been made available in all areas to serve those who desire to use it. The advantages of spraying are being recognized. Spraying of cherry trees has been a general practice and to a lesser degree dessert pears, but very few apple trees are given this attention. Cider apple trees are not sprayed at all. Harvesting methods in recent years have been improving. Grading is not generally practiced but is receiving serious consideration in some areas.

Production: In the six-year period 1926 to 1931 apple production in Switzerland averaged 15,000,000 bushels. The commercial production, however, was much lower. The total fruit available for marketing (commercial production), including apples, pears, and plums, was 7,669,000 bushels. This figure excludes cherries, apricots, and less important fruits. Apples constituted 63.1 per cent, pears 35.3 per cent, and plums 1.6 per cent of the total. Commercial apple production averaged 4,839,000 bushels, of which cider apples constituted 45.0 per cent, early eating apples 13.3 per cent, and late eating apples 41.7 per cent. (See tables, pages 6, 69).

Consumption: The per capita consumption of apples in Switzerland is quite high. In the three years 1928-1930 the consumption of all apples averaged 40.4 pounds per person and reached 64.3 pounds in 1929. The consumption of dessert apples averaged 19.8 pounds per capita in this period. (See table, page 69).

Exports and imports: Switzerland exports considerable quantities of apples. In years of large crops Swiss apple exports exceed 2,000,000 bushels a year. The average for the three-year period 1928-1930 was about 1,200,000 bushels a year. The bulk of the shipments go to Germany with smaller amounts to Austria and France. Some fruit is also shipped to Italy, Denmark, Sweden, and Poland. Owing to the higher tariff in Germany on packed fruit, most of

the exports are shipped in sacks or in bulk. The packaged fruit is largely disposed of in France, Italy, and Denmark. Imports into Switzerland, on an average, in the three-year period, 1928 to 1930, were around 1,000,000 bushels or roughly half as large as the exports. This figure is augmented by the exceptionally heavy imports in 1930, a year of very poor domestic crops. Most of the imports come from France, Italy, and Germany. Considerable quantities of United States apples find their way into Switzerland from Germany. (See tables, page 68).

SWITZERLAND: Exports and imports of fruit by countries of destination and origin, 1928 - 1930.

Country	1928		1929		1930	
	Fruit unpacked or in sacks	Apples, pears and apricots otherwise packed	Fruit unpacked or in sacks	Apples, pears and apricots otherwise packed	Fruit unpacked or in sacks	Apples, pears and apricots otherwise packed
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Exports						
Germany....	2,111	9	1,174	21	172	3
Austria....	155	3	930	4	101	1
France.....	175	26	110	50	27	9
Italy.....	13	19	90	96	8	5
Denmark....	8	16	38	60	1	1
Sweden.....	5	1	10	19	-	-
Others.....	32	3	138	13	26	18
Total....	2,499	77	2,491	264	335	37
Imports						
Germany....	123	2	173	2	200	1
France.....	226	12	342	30	450	14
Italy.....	124	85	137	68	446	125
U. S.....	-	5	-	34	-	22
Spain.....	-	11	-	8	1	12
Australia..	-	5	-	3	-	9
Others.....	62	3	15	3	241	4
Total....	535	122	667	148	1,339	187

Statistik des Warenverkehrs der Schweiz mit dem Auslande, 1930. Pt. I. Converte at 50 pounds to the bushel.

SWITZERLAND: Fruit available for marketing (Commercial production) 1926 to 1931 and the average for the six year period 1926 - 1931

Fruit	1926	1927	1928	1929	1930	1931	Average 1926-31
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Early perry pears....	1,210	1,613	1,120	2,083	134	1,792	1,325
Late perry pears.....	1,344	2,016	672	2,150	112	1,971	1,378
Cider apples.....	1,731	2,087	2,291	3,080	356	3,512	2,176
Early eating apples..	407	1,065	662	993	122	1,069	644
Late eating apples...	1,425	1,833	2,036	3,156	407	3,258	2,019
Plums.....	90	90	179	314	34	58	127
Total.....	6,207	8,704	6,960	11,776	1,165	11,660	7,669

Source: Fruit Trade Commissioner G. E. Luebben, Berlin, Germany, quoted from "Revue Suisse". Converted to bushels at 50 pounds to the bushel for pears and plums and 44 pounds for apples.

SWITZERLAND: Per Capita consumption of dessert and all apples, 1928-1930.

Year	Production Apples		Imports	Exports	Supply		Per Capita Consumption	
	Dessert	All apples			Dessert	All apples	Dessert	All Apples
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
1928...	2,698	4,989	415	1,625	1,488	3,779	16.2	41.3
1929...	4,149	7,229	421	1,738	2,832	5,912	30.8	64.3
1930...	529	885	845	235	1,139	1,495	12.3	16.2

Computed by Foreign Agricultural Service from official sources.

Austria

Production: Fruit plantings in Austria, as in some of the other European countries, are well scattered throughout the country. The most important region is in the southern part of the country in the vicinity of Graz in the Steirermark district. Trees have been planted at irregular intervals over the meadows and along roadsides. There are no large, solid blocks of trees, but trees in small numbers extend for miles in all directions. The plantings form almost without exception an auxiliary to the pastures. The production of apples in the five-year period, 1926-1930, has averaged 2,528,000 bushels. Production figures indicate that there is rather a marked biennial yield. (See table, page 71). The chief varieties produced, mostly winter apples, are Winter Gold Pearmain, Canada Reinette, Gravenstein, Gold Edelapple, Schoner von Boskoop, White Winter Colville, Danzinger Kantapple, and Yellow Bellflower. According to Mr. Motz, the apple industry in Austria is making little progress, and indications are that no important developments will occur in the way of new plantings or better cultural practices in the near future.

Exports and imports: Exports from Austria fluctuate widely owing to the variation in yield. In 1929 exports amounted to only 76,179 bushels, whereas in the following year they jumped to 2,255,078 bushels only to recede in 1931 to 195,528 bushels. Most of the exports go to Germany. Smaller quantities are exported to Czechoslovakia, Switzerland, Hungary, Italy, and Poland. (See table, page 71). Imports of apples into Austria in the three-year period 1929 to 1931 averaged considerably more than the exports or 1,421,860 bushels against 842,262 bushels exported. Imports were drawn from a long list of countries none of which were outstandingly important. The following countries were the leading sources of supply: Yugoslavia, United States, Italy, Hungary, Switzerland, and Australia. (See table, page 72).

SWITZERLAND: Estimated exports of apples by countries, 1928-1930.

Country	1928	1929	1930
	1,000 bushels	1,000 bushels	1,000 bushels
Germany	1,338	754	110
Austria	100	589	64
France	127	101	23
Italy	20	117	8
Denmark	15	62	1
Sweden	4	18	-
Others	21	97	29

AUSTRIA: Apple production, 1922 to 1930

Year	Bushels	Year	Bushels
1922	19,917,000	1927	7,290,000
1923	5,253,000	1928	9,066,000
1924	28,926,000	1929	4,710,000
1925	3,519,000	1930	8,577,000
1926	6,474,000		

Compiled by Foreign Agricultural Service from Statistik der Ernte. Converted from quintals to bushels of 44 pounds.

AUSTRIA: Exports of apples by countries, 1930-1931, and total for 1929

Country	1929 a/	1930	1931
	Bushels	Bushels	Bushels
Germany		1,783,475	32,874
Italy		24,982	11,003
Poland		3,021	32,813
Switzerland		142,753	5,226
Czechoslovakia		225,821	72,847
Hungary		58,292	40,625
France		8,012	-
Netherlands		5,722	-
Others		3,000	140
Total	76,179	2,255,078	195,528

Compiled by Foreign Agricultural Service from Statistik Aussenhandels Osterreichs. Converted to bushels of 44 pounds. a/ Not reported by countries.

AUSTRIA: Imports of apples, by countries, 1930-31, and total for 1929

Country	1929 a/	1930	1931
	Bushels	Bushels	Bushels
Germany		22,407	18,524
Italy		256,906	84,125
Poland		-	4,053
Rumania		12,676	33,370
Switzerland		102,875	104,794
Yugoslavia		277,569	414,885
Czechoslovakia		3,492	6,173
Hungary		129,285	118,116
Belgium		52,059	-
Netherlands		6,699	3,723
Russia		19,175	1,979
Spain		2,836	461
Canada		2,876	1,739
United States		200,734	295,035
Australia		48,045	29,922
New Zealand		-	8,558
Other countries		12,695	3,708
Total	1,986,087	1,150,329	1,129,165

Compiled by Foreign Agricultural Service from Statistik des Aussenhandels. Osterreichs. Converted to bushels of 44 pounds. a/ Not reported by countries.

Czechoslovakia

Fruit growing is well scattered over the Republic of Czechoslovakia according to Fred A. Motz, Fruit Specialist in Europe for the Foreign Service of the Department of Agriculture. The landscape is well flecked with trees in all directions owing to an old law requiring farmers to plant fruit trees along all roadsides. Many trees are also planted in gardens around the houses. Bohemia is by far the most important part of Czechoslovakia for fruit production. This fruit district starts in the western part of the country in the Valley of the River Elbe, across from the German frontier, where the hills rise from the river banks forming a rolling, somewhat broken country which is wooded or in grass. A short distance from the river the slopes become more gentle which permits the planting of trees and the growing of cultivated crops. The industry follows the River Elbe through Aussig to a point near Leitmeritz, and then spreads out in both directions. Although plantings are scattered quite generally along the banks of the river, the commercial plantings are mostly on higher elevations where there is better air-drainage and the danger of spring frosts minimized.

Apples, pears, plums, apricots, and grapes are grown on a commercial scale in Czechoslovakia. Some of the best and heaviest plantings of apples are in the neighborhood of Leitmeritz. Another district for apples lies in Ruthenia, centering at Uzhorud. The apple orchards, like those in most continental countries, are not considered of primary importance. The farmer's first consideration is grass or cultivated crops. The trees are scattered at random over the farms, frequently without regard to proper spacing or alignment. The land which is occupied by trees is also used for producing hay crops, grain, sugar beets, and garden truck. There are few well-kept orchards where the trees are set out in regular rows. The majority of the farms in this region run from 25 to 100 acres.

Since the severe freeze of the winter of 1928-29, Czechoslovakia has been unimportant as an apple exporter. The government estimates that 50 per cent of the apple trees were killed in that year as well as a large percentage of other fruit trees. Although this country has good possibilities from a horticultural standpoint, indications are that it will be a number of years before the diminution in production caused by the freeze will be overcome.

Exports and imports: Official reports do not include any exports of apples in the last few years. Imports averaged 54,000 bushels a year during the three-year period 1928-1930. Germany supplied 48.6 per cent of this amount; Italy 15.1 per cent; United States 15.1 per cent; Austria 6.7 per cent, and other countries the balance or 14.5 per cent. Imports are fairly evenly spread throughout the year, becoming somewhat heavier after January when the domestic supplies have been diminished. (See tables, page 74).

CZECHOSLOVAKIA: Imports of Apples and Pears, by countries, 1928 to 1930

Country	1928	1929	1930
	Bushels	Bushels	Bushels
United States	4,785	10,316	9,550
Germany	17,076	35,940	26,140
Italy	7,561	10,787	6,273
Austria	3,136	5,066	2,680
Russia	1,323	4,094	65
Netherlands	--	2,290	1,253
Hungary	270	1,333	526
Australia	1,844	1,233	1,804
New Zealand	145	1,092	2,270
Canada	246	321	140
Rumania	--	75	631
Yugoslavia	--	65	185
Spain	175	--	--
Others	95	100	1,343
Total	37,157	72,712	52,860

Compiled by Foreign Agricultural Service from Commerce Extérieur de la République Tchécoslovaque. Converted to bushels of 44 pounds.

CZECHOSLOVAKIA: Imports of Apples and Pears, by months, July - June, 1928-29 to 1930-31

Month	1928 - 29	1929 - 30	1930 - 31
	Bushels	Bushels	Bushels
July	2,004	5,261	2,004
August	2,255	7,165	1,804
September	1,904	1,904	1,553
October	2,706	1,653	3,457
November	5,411	5,161	6,363
December	2,405	5,712	6,514
January	5,361	1,854	3,608
February	1,403	4,810	4,159
March	11,624	4,610	2,656
April	8,117	3,858	3,207
May	8,763	8,818	3,758
June	10,622	7,265	2,555
Total	62,580	58,071	41,638

Compiled by Foreign Agricultural Service from Mesiene Prehled Zahranicního Obchodu Republiky Ceskoslovenské. Converted to bushels of 44 pounds.

Poland

There were about 28,000,000 fruit trees in Poland in 1931 of which about half were apple trees, according to Consul Stewart E. McMillin at Warsaw. The official apple production estimates for the four-year period 1925-1928 averaged 36,200,000 bushels. Owing to the severe freeze of 1928-29, yields have declined at least 50 per cent. The per capita consumption of apples in Poland is high averaging about 36 pounds in the three-year period 1928-29 to 1930-31. (See table, page 75.)

Exports and imports: Exports of apples from Poland are unimportant averaging only 65,876 bushels in the three seasons 1928-29 to 1930-31. Fair quantities of apples are imported by Poland. These averaged 416,578 bushels in the period under survey. Imports come mainly from Switzerland, United States, Holland, and Belgium. A good share of the apples from the last two countries is reexported United States fruit. (See tables, pages 76,77.)

Latvia, Esthonia and Lithuania

The three Baltic countries of Latvia, Esthonia, and Lithuania usually export more apples than they import, according to a report from G. E. Luebben, Fruit Trade Commissioner, Berlin, Germany. All of these countries have such high duties on imported fruit that it is only available to the wealthier classes. Most of the apple supplies are purchased from the United States, Russia, Germany, and Italy. The fruit imported from Germany is bought in Hamburg, some of which is reexported American fruit. All three countries have established export inspection for apples. The fruit is graded into three classes; table, marmalade, and cider fruit. In the three-year period, 1928 to 1930 apple exports from Latvia averaged 95,000 bushels against imports of 3,160 bushels. The exports from Esthonia in the two years 1929 and 1930 averaged 9,000 bushels and the imports only 120 bushels. A considerable quantity of apples are exported from Lithuania amounting to an average of 275,000 bushels in the three-year period 1928 to 1930. Imports totaled 650 bushels in 1930.

POLAND: Per capita consumption of apples, 1928-29 to 1930-31

Year	Production	Imports	Exports	Total supply	Per capita consumption
	Bushels	Bushels	Bushels	Bushels	Pounds
1928-29	37,581,000	102,000	30,500	37,652,500	54.6
1929-30	a/18,820,000	673,000	2,300	19,490,700	27.9
1930-31	a/18,820,000	475,000	164,900	19,130,200	27.0

Compiled by Foreign Agricultural Service from official records, bushels of 44 pounds. a/ Production figures not available after 1928, when fruit trees were reduced about 50 per cent by the freeze of that year.

POLAND: Exports and imports of apples by countries, 1928 to 1930

Country	1928	1929	1930
	Bushels	Bushels	Bushels
Imports:			
United Kingdom	1,087	-	-
Austria	1,989	-	-
Czechoslovakia	8,964	26,771	1,889
Rumania	23,780	-	-
United States	3,968	46,617	97,589
Hungary	3,422	-	-
Italy	8,843	17,181	35,419
Switzerland	-	81,285	34,026
Holland	-	69,690	114,664
Belgium	-	2,525	208,279
Other countries	1,153	54,960	36,055
Total	53,206	299,029	527,921
Exports:			
Czechoslovakia	2,305	35	87,803
Germany	23,850	6,859	63,452
Other countries	645	261	12,466
Total	26,800	7,155	163,721

Annuaire de Commerce Exterieur, 1928, 1929 and 1930, de la République Polonaise et de la ville libre de Dantzig. Converted to bushels of 44 pounds.

POLAND: Exports of apples by months, 1928-29 to 1930-31

Month	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
July	a/	20	5
August	15	321	100
September	1,263	561	5,672
October	9,114	581	96,962
November	11,810	391	58,933
December	3,242	271	1,899
January	2,375	95	576
February	727	35	30
March	907	10	5
April	501	5	456
May	706	5	2
June	2	5	225
Total	30,462	2,300	164,865

Commerce Extérieur de la République Polonaise, 1928-29 to 1930-31. Converted to bushels of 44 pounds. a/ Less than 1 bushel.

POLAND: Imports of apples by months, 1928-29 to 1930-31

Months	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
July	411	1,192	326
August	5,030	1,744	4,630
September	892	6,739	842
October	4,745	21,585	12,661
November	19,110	108,882	41,592
December	11,233	98,566	33,780
January	9,319	50,290	71,234
February	4,239	142,682	67,716
March	14,170	149,056	85,754
April	15,557	80,889	101,467
May	11,709	10,051	47,840
June	5,331	1,132	7,340
Total	101,746	672,808	475,182

Commerce Extérieur de la République Polonaise, 1928-29 to 1930-31. Converted to bushels of 44 pounds.

CHILE: Exports of apples by countries, 1928 to 1931

Countries	1928	1929	1930	1931
	Bushels	Bushels	Bushels	Bushels
Argentina	98,558	143,555	78,864	57,020
Peru	305	2,555	3,357	7,817
France	-	-	1,504	11,174
Netherlands	-	198	-	5,763
Belgium	-	204	-	5,613
Spain	-	-	351	4,910
United Kingdom	300	501	1,303	2,805
Germany	-	21,496	55,566	43,142
Italy	-	-	700	-
Venezuela	99	-	1,403	-
Cuba	601	150	1,352	-
Others	1,602	1,000	1,660	1,002
Total	101,465	169,659	146,060	139,246

"Weekly Fruit Intelligence Notes" British Empire Marketing Board Vol. VI, No. 4. Converted to bushels of 44 pounds.

South America

Apples are produced in a number of South American countries, chief of which are Chile and Argentina. Of the two, Chile is more important from an export standpoint. Chile ships apples to a number of different countries but mainly to Argentina. South American countries, however, import more apples than they export, both Argentina and Brazil being important markets for American apples.

Argentina: Large quantities of fruit are produced in Argentina. Citrus fruits are grown in the northern provinces; soft fruits, apples, and pears in the Delta Lands adjacent to Buenos Aires; grapes in Mendoza and San Juan; and apples and pears in the Rio Negro Valley. In recent years apple plantings have been made in the Mendoza District. Argentine apples are marketed from about February to June. Most of the fruit is of low quality, since until recent years very little attention has been given to the trees. In the older plantings the principal varieties are Cara Sucia, Blanquita, Rayada, Mitre, and Huidobro. In the newer orchards the most important varieties are Delicious, Jonathan, and King David. The total production of apples in Argentina is said to be about 1,500,000 bushels.

Exports of apples and pears from Argentina are small, amounting to about 12,250 bushels in 1928, 6,400 bushels in 1929, and 6,800 bushels in 1930. (Figures not given separately). (See table, page 79). Imports, most of which consist of apples, are important, totaling 1,290,000 bushels in 1929 and 821,000 bushels in 1930. Of the apples and pears imported in 1929 and 1930, the United States supplied 78.2 per cent, New Zealand 11.5 per cent, Chile 9.2 per cent, and all others 1.1 per cent. The decree of March 9, 1931, which permitted the importation of apples and pears only from May 1 to December 15, was repealed April 8, 1932. Apples and pears can now be imported the year around. The most popular imported apples are Delicious, Gravenstein, Winesap, Jonathan, King David, and Ben Davis. The Argentine market prefers large-sized fruit. The strict import regulations are in force which permit only the best, wrapped apples to enter that country.

ARGENTINA: Imports of Apples and Pears by Countries, 1929 - 1930

Country	1929	1930
	Bushels	Bushels
United States	1,032,225	618,229
Chile	127,025	68,006
New Zealand	119,354	123,959
Canada	-	10,180
Brazil	5,926	152
Germany	1,774	26
Portugal	1,300	-
Others	1,906	2
Total	1,289,510	820,554

Anuario del Comercio Exterior de la Republica Argentina.

Chile: There are about 90,000 acres in Chile planted to fruit trees. This area contains about 3,250,000 trees of which about 1,130,000 are apple trees and 1,000,000 are peach trees. The balance is made up of pears, plums, apricots, oranges, and lemons. The citrus-fruit harvest starts in June and deciduous fruit in October. The latter continues until May. The chief orchard region at present is near Santiago in the sheltered valleys of the Andean spurs. Since irrigation water is limited in this area any future expansion is likely to take place farther south, according to the Empire Marketing Board. In addition to tree fruits, large quantities of melons and grapes are produced in Chile. The Chilean Government is encouraging fruit growing by aiding growers in the selection of proper varieties and in the packing and storage of fruits. Nurseries have been established, and an export control and inspection service inaugurated. The result has been a definite improvement in the quality of export fruit.

Apples and melons are the most important fruits exported from Chile, although pears, grapes, peaches, and plums are also shipped, as well as some less important fruits. In the four years 1928 to 1931 total fruit exports averaged around 5,486 short tons, of which apples made up 55.8 per cent, melons 35.4 per cent, grapes 3.0 per cent, pears 2.6 per cent, peaches 2.0 per cent, plums .5 per cent, and all other fruits .7 per cent. Melons are principally exported to the United States. The average apple exports in the period under survey were 139,000 bushels. Argentina took on an average 94,500 bushels, Germany 30,000 bushels, Peru 3,500 bushels, France 3,200 bushels, the Netherlands 1,500 bushels, Belgium 1,450 bushels, Spain 1,300 bushels, the United Kingdom 1,200 bushels, and all other countries 2,350 bushels. (See table, page 77.) Exports to Argentina have declined somewhat as have the total exports, but those to Europe are increasing rapidly as more markets are opened.

ARGENTINA: Exports of apples and pears, by countries, 1928-1930

Country	1928	1929	1930
	Bushels	Bushels	Bushels
Brazil	3,745	3,610	4,931
Uruguay	3,943	2,263	1,469
United Kingdom	3,887	22	4
Chile	623	455	272
Others	59	94	175
Total	12,257	6,444	6,851

Annuario del Comercio Exterior de la Republica Argentina.

Union of South Africa

Number of trees: Apples are one of the less important fruits grown for export in the Union of South Africa. In 1925 the total number of apple trees was 2,464,370 or about the same as in 1926. The bearing trees in 1930 totaled 1,558,810 against 1,406,030 in 1926. In 1925 the total number of apple trees in orchards, the fruit of which was grown for export, was 403,000. (See table page 80). Plantings were distributed as follows: 178,000 trees in Cape Province, 191,000 trees in the Transvaal, and 34,000 trees in Orange Free State. The plantings in Orange Free State and the Transvaal have been made in recent years. Less attention has been given to apples from an export standpoint than to pears, grapes, plums, and peaches, since these fruits are more suited to South Africa than apples. Most of the growing regions of South Africa lack the cool nights necessary to give the fruit a good finish. There is also considerable loss from hail. However, apple production appears to be tending slightly upward in South Africa. The most important varieties produced for export are Ohenimuri, Rome Beauty, Jonathan, White Pearmain, Delicious, Versveld, Lord Wolseley, Cleopatra, and Reinette du Canada.

Exports: Apple exports from South Africa averaged 27,000 bushels a year during the five-year period 1926-1930. An average of about 6,800 bushels went to the United Kingdom and most of the balance to nearby South African countries, Brazil, and India. The trend in exports is slightly upward. Imports during the five-year period 1926-1930 averaged 35,800 bushels or 32.5 per cent more than the exports. The bulk of the imports, amounting on an average to 30,000 bushels, come from Canada and the remainder from the United States and Australia. Takings from the United States have declined rapidly in recent years. Most of the imports arrive in the period September to November, when South African fruits are largely off the market. South African apples are harvested from January to April and are available on the local markets until September or October. (See tables, page 81).

UNION OF SOUTH AFRICA: Number of apple trees in 1925, the fruit of which is grown for export and the total in 1926 and 1930

Year	Bearing trees	Nonbearing trees	Total
	Number	Number	Number
Export orchards, 1925	a/ 96,000	a/ 307,000	403,000
Other orchards	a/1,310,030	a/ 725,210	a/2,035,240
Total 1926	1,406,030	1,032,210	2,438,240
Total 1930	1,558,810	905,560	2,464,370

C. C. Taylor, Agricultural Attaché, Pretoria. a/ Approximate.

UNION OF SOUTH AFRICA: Exports of apples by countries, 1926-1930

Country	1926	1927	1928	1929	1930
	Bushels	Bushels	Bushels	Bushels	Bushels
United Kingdom	5,689	6,923	2,462	10,610	8,749
Belgian Congo	1,928	6,815	5,086	7,837	10,190
Port East Africa	2,093	4,084	4,482	6,549	6,280
Brazil	-	1,235	1,218	8,258	1,387
India	2,515	1,695	883	3,153	2,002
Kenya Colony	1,372	5,097	2,892	3,789	2,645
Others	1,819	920	527	2,176	1,009
Total	15,416	26,769	17,550	42,372	32,262

Annual Statement of Trade and Shipping of the Union of South Africa. Bushels of 44 pounds. Total exports in 1931 were 1,848 short tons and in 1930 about 1,680 short tons are expected to be available for export.

UNION OF SOUTH AFRICA: Imports of apples by countries, 1926-1930

Country	1926	1927	1928	1929	1930
	Bushels	Bushels	Bushels	Bushels	Bushels
Canada	20,226	27,021	32,906	35,232	34,559
United States	6,863	5,584	5,638	500	425
Australia	1,011	2,145	2,754	600	2,065
Others	702	87	502	14	9
Total	28,802	34,837	41,800	36,346	37,058

Annual Statement of Trade and Shipping of the Union of South Africa. Bushels of 44 pounds.

JAPAN: Number of apple trees and production of apples, 1921-1930

Year	Trees	Production	Year	Trees	Production
	Number	Bushels		Number	Bushels
1921	3,168,087	1,363,693	1926	2,686,670	4,888,307
1922	3,048,011	3,246,598	1927	2,699,158	3,583,290
1923	3,140,606	1,503,357	1928	2,655,482	4,612,596
1924	2,814,007	1,996,890	1929	2,820,384	4,704,583
1925	2,789,745	2,891,080	1930	2,859,985	5,037,674

Statistical Abstract, Ministry of Agriculture and Forestry, Japan, 1930. Converted to bushels of 44 pounds.

Oriental countries

Japan: Apple production in Japan has been increasing steadily since 1920. Official returns place the number of trees in 1921 at 3,168,000 and the production at 1,364,000 bushels. In 1930 the number of trees was reported at 2,860,000 and the production at 5,038,000 bushels. Apples are mainly grown in Hokkaido and Aomori. (See table, page 81). Most of the crop is consumed at home as the exports averaged only 113,000 bushels during the three-year period 1928-29 to 1930-31. The bulk of the fruit moves out from October to April. Exports go to nearby Asiatic countries including China, Kwantung (Southern Manchuria), Hongkong, and Asiatic Russia, to mention the most important. (See tables, pages 82, 83). No import figures are available.

Chosen (Korea): Apples production in Chosen has increased from about 500,000 bushels in the period 1920 to 1924 to 1,109,000 bushels in the period 1926 to 1930. The 1929 production was placed at 1,500,000 bushels and the 1930 production at 1,237,000 bushels. Chosen exports apples to Manchuria, China, Japan, and other oriental countries, figures for which are not available.

China: Many kinds of fruit including apples are grown in China. The most important apple-growing provinces are Shantung, Hopei, Fengtein, and Shansi. The fruit grown in these regions is practically all consumed locally with the exception of the apples grown in the Chefoo district of Shantung, a considerable quantity of which are shipped to the Shanghai market. In addition to home-grown apples China consumes on an average about 225,000 bushels of imported apples. These come mainly from Chosen, Japan, United States and Canada. (See table, page 83).

JAPAN: Exports of apples, by months, 1928-29 to 1930-31

Months	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
July	1,605	607	219
August	189	433	78
September	1,897	1,825	1,127
October	8,974	4,933	15,870
November	15,522	9,969	18,768
December	12,825	9,181	21,273
January	15,711	12,242	20,737
February	9,476	15,013	16,083
March	13,504	16,757	14,875
April	20,338	11,664	18,230
May	5,462	11,280	5,390
June	2,988	2,279	2,080
Total	108,491	96,183	134,730

Monthly Trade Returns of Japan. Converted to bushels of 44 pounds.

JAPAN: Exports of apples, by countries, 1926-1928

Country	1926	1927	1928
	Bushels	Bushels	Bushels
China	17,812	18,259	40,978
Kwantung Province	20,025	17,575	74,695
Hongkong	6,289	12,654	8,908
British India	1,058	2,243	4,642
Straits Settlement	830	5,652	6,352
Dutch India	1,239	604	180
French Indo-China	1,978	4,203	3,526
Asiatic Russia	2,336	1,410	4,260
Philippine Islands	286	499	418
Other countries	3	-	1
Total	51,856	63,109	143,960

Annual Return of Foreign Trade - Japan, 1926, 1927, and 1928. Converted to bushels of 44 pounds.

CHINA: Imports of apples, by countries, 1928-1930

Country	1928	1929	1930
	Bushels	Bushels	Bushels
Hongkong	2,330	724	3,830
Macao	9	70	100
French Indo-China	15	18	-
United Kingdom	-	-	3
Russia	8,397	1,364	4,358
Chosen	131,248	189,370	64,421
Japan (Including Formosa)	60,851	56,212	37,376
Canada	17,024	15,742	10,085
United States	23,170	43,388	21,273
Direct gross imports	243,044	306,888	141,446
Reexported abroad	61	155	915
Net imports from abroad	242,983	306,733	140,531

Foreign Trade of China, 1930, Pt. II, Vol. II,
Converted to bushels of 44 pounds.

IMPORTING COUNTRIES

United Kingdom

Apples have been grown in the United Kingdom for centuries, the fruit probably having been introduced into England by the Romans. It is reported that in 1650 as many as 200 varieties were being grown. It was not however, until the last 25 years, when English growers found that their markets were not confined to the nearest city, but extended over the entire Kingdom, that plantings of market apples were made on a large scale, according to Edwin Smith, "Marketing Fresh Fruit in Europe", United States Department of Agriculture, Circular 90. Prior to this time most of the production consisted of apples which were either used for cider or consumed locally. The chief apple-producing regions are Kent, Eastern England (East Anglica), the Severn District, and Southwestern England.

Acreage: In 1920, the last year when separate figures for English orchard fruits were given, orchards covered 217,642 acres, of which apples amounted to 130,438 acres or 59.9 per cent, plums 16,006 acres or 7.3 per cent, cherries 8,749 acres or 4.0 per cent, pears 8,681 acres or 3.9 per cent and other fruits and mixed orchards 53,768 acres or 24.9 per cent. Between 1915 and 1920 the apple area was reduced 31,698 acres or 20.0 per cent. The decline was mainly accounted for by the removals of cider apple trees in Devon and Somerset in the Southwest and in Hereford, Worcester, and Gloucester in the Severn District. Since the acreage under orchard trees in 1930 is given as 241,779 acres, which is an increase over that of 1920 by 24,137 acres or 11.1 per cent, it would appear that apple plantings have been increasing in England since 1920. The greatest increase in plantings from 1920 to 1930 has occurred in Kent, Norfolk, Isle of Ely, Worcester, Devon and Somerset. (See table page 85).

Kent is by far the most important fruit-growing county of England and is the chief source of dessert and cooking apples. The area in orchard trees in this county has increased from 41,006 acres in 1915 to 60,687 acres in 1930, an increase of 50 per cent. The Eastern Counties (East Anglica) also supply considerable quantities of market apples, especially the counties of Norfolk and the Isle of Ely. The Severn District of Worcester, Gloucester, Hereford, and Monmouth counties produce important amounts of apples, pears, and stone fruits, but the apples are mostly cider varieties. Practically all of the apples grown in Southwest England, in the counties of Devon, Somerset, Dorset, and Cornwall are cider apples. Many varieties of apples are grown in England. Some of the most important dessert varieties are Cox's Orange Pippin, Worcester Pearmain, Beauty of Bath, James Grieve, Blenheim, Allington Pippin, and Gladstone. Important cooking apples are Bramley Seedling, Newtown Wonder, Lane's Prince Albert, Lord Derby, Lord Grosvenor, Keswick, Bismark , and Miller Seedling. Most of the fruit is harvested in August and September. Choice dessert apples are mainly early-maturing varieties and are usually off the market by January. Some Cox's Orange Pippins, the favorite dessert apple, are stored and marketed until about February. A considerable quantity of Bramley Seedlings and some Newtown Wonders are also stored. Bramley is sometimes available as late as April.

UNITED KINGDOM: Orchard acreage in England and Wales
1915, 1920 and 1930

County	1915		1920		1930
	Apples	Total	Apples	Total	Total
	Acres	Acres	Acres	Acres	Acres
Kent	16,842	41.006	19,960	46,108	60,687
S. W. England					
Devon	24,837	25,450	18,903	20,717	21,951
Somerset	23,199	23,484	17,101	18,650	19,227
Dorset	3,955	4,079	2,455	2,732	2,700
Cornwall	4,121	4,613	3,361	3,895	4,123
Severn District					
Hereford	23,064	26,371	14,797	19,255	19,826
Worcester	12,925	24,894	9,921	20,988	22,306
Gloucester	11,251	19,364	7,714	14,955	14,223
Monmouth	3,190	3,519	1,883	2,429	2,640
Eastern England					
Norfolk	4,266	6,586	3,720	5,889	9,368
Isle of Ely	1,993	3,319	2,628	4,270	5,131
Others	32,374	63,030	27,995	57,754	59,597
Total England	162,017	245,715	130,438	217,642	241,779
Total Wales	2,557	3,116	1,591	2,365	5,200
Grand total	164,574	248,831	132,029	220,007	246,979

Compiled by Foreign Agricultural Service from "Acreage and Livestock Returns for England and Wales", Part I, annual Report Ministry of Agriculture and Fisheries. In 1931 the grand total was 244,800 acres and in 1931, 247,100 acres.

UNITED KINGDOM: Production of apples, 1923 to 1931

Harvest Year	Dessert and cooking	Cider	Total
	Bushels	Bushels	Bushels
1923	7,789,091	4,021,818	11,810,909
1924	6,058,182	2,901,818	8,960,000
1925	16,596,363	2,952,727	19,549,090
1926	2,840,727	2,634,545	5,475,272
1927	15,137,818	4,698,909	19,836,727
1928	7,397,091	3,398,182	10,795,273
1929	16,329,091	2,914,545	19,243,636
1930	9,751,636	2,845,818	12,597,454
1931	a/ 3,892,000	a/ 2,186,545	a/ 6,078,545

Empire Marketing Board statistics for England and Wales. Apple production in Scotland and Northern Ireland is not important. Bushels of 44 lbs. a/ Preliminary estimate.

In 1930 there were about 5,200 acres of fruit trees in Wales as against 2,365 acres in 1920. Most of the plantings are in Montgomery, Radnor, and Brechnock counties. In 1920, the last year when separate figures for fruits were given, apples constituted about 65 per cent of the plantings. Compared with the English fruit industry, that of Wales is unimportant, amounting to only 2 per cent of the English acreage. Tree fruits are only grown on a small scale in Scotland, most of the fruit production being made up of bush fruits. Some apples are grown in Northern Ireland but the total production is not important.

Production: In the nine-year period 1923 to 1931 apple production in England and Wales has averaged 12,705,000 bushels, of which 3,171,000 bushels or 25 per cent were cider apples and 9,533,000 bushels or 75 per cent dessert and cooking apples. The production of dessert and cooking apples is on a slightly upward trend and cider apples somewhat downward. The production fluctuates widely ranging from 5,475,000 bushels in 1926 to 19,837,000 bushels in 1927. (See table, page 85). Of the total production of fruits and berries in England and Wales, in the period under survey, apples constituted 60.7 per cent; plums, 12.5 per cent; pears, 5.3 per cent; cherries, 3.0 per cent; and berries, the balance of 18.5 per cent. An interesting phenomenon and of importance to both American and British apple producers is that since 1923 large American crops have occurred in years of small British crops and vice versa.

Consumption and imports: The average supply of apples in the United Kingdom in the three marketing seasons July to August, 1927-28 to 1929-30, has been 28,312,000 bushels of which 46 per cent were home-grown cooking and dessert apples and 54 per cent were imported. The average per capita consumption during this period has been 28.1 pounds or when cider apples are included 31.7 pounds. This quantity compared favorably with the per capita consumption of dessert and cooking apples in many apple-exporting countries and is higher than any other country on an apple-import basis. (See tables, page 87).

The United Kingdom is the greatest importer of fruit in the world and is by far the most important market for export apples. In the six seasons 1925-26 to 1930-31 the average apple importation was 16,467,000 bushels. Total imports in 1930-31 amounted to 15,240,000 bushels, or a little below average but larger than the takings in 1929-30. This diminution was accounted for by the larger-than-average British crops and the reduced crops in North America. The small British crop in 1931 and the large crops in the United States, Canada, Australia and New Zealand paved the way for the heaviest apple imports on record in 1931-32 season. From July 1 to March 31 imports totalled 16,236,000 bushels, or just a little below the quantity imported in the same period in the 1926-27 season, the former record year. Heavy arrivals of apples in the last three months of the season, however, raised the total imports for 1931-32 to 22,319,000 bushels compared with a total of 21,777,000 bushels in 1926-27. The heavy imports in the last quarter of the year were due mainly to the heavy shipments from Australia and New Zealand. During the five years, 1926-30, an average of about 51 per cent of the imports of apples into the United Kingdom came from the United States; 24 per cent from Canada; 15.4 per cent from Australia; 4.4 per cent from New Zealand; and the balance of about 5 per cent from European countries. Countries of the British Empire supply about 44 per cent of the apple imports and foreign countries 56 per cent.

UNITED KINGDOM: Imports of apples by countries of origin, 1926-1931

Country	1926	1927	1928	1929	1930	Average 1926-1930	
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Per cent
United States	11,659,711	9,736,817	7,521,005	7,863,310	5,688,462	8,493,861	51.4
Russia	45,146	69,860	61,020	50,461	25,946	50,487	.3
Germany	14,649	3,182	6,776	26,208	25,197	15,202	.1
Netherlands	57,278	77,390	10,317	172,327	14,921	66,448	.4
Belgium	262,500	264,783	63,814	149,403	8,873	149,875	.9
France	753,158	325,538	85,779	241,479	165,658	314,322	1.9
Portugal	38,841	225,137	13,117	168,018	36,578	96,338	.6
Italy	122,477	38,261	11,050	47,152	578	43,904	.2
Other foreign countries	31,881	14,466	1,209	17,485	11,742	15,357	.1
Total foreign countries	12,985,641	10,755,443	7,774,087	8,735,842	5,977,956	9,245,704	55.9
Canada	4,088,270	3,016,137	3,173,723	4,345,689	5,310,651	3,986,894	24.1
Australia	3,311,254	1,417,378	3,671,313	895,734	3,438,503	2,546,842	15.4
New Zealand	661,629	476,725	870,353	656,917	967,806	726,686	4.4
Other British countries	40,121	17,514	9,993	21,321	14,390	20,668	.1
Total British countries	8,101,274	4,927,754	7,725,382	5,919,691	9,731,350	7,281,090	44.1
Total	21,086,915	15,683,197	15,499,469	14,655,533	15,709,306	16,526,884	100.0

The Trade of the United Kingdom, 1931. Converted to bushels of 44 pounds. The total imports in 1931 amounted to 19,947,870 boxes. Figures by countries not available.

UNITED KINGDOM: Per capita consumption of apples, 1927-28 to 1929-30

Year	Production		Imports	Re-exports	Supply		Per capita consumption	
	Table	Cider			Table	Total	Table	Total
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Pounds	Pounds
1927-28	15,138	4,699	13,381	944	29,463	34,162	28.7	33.3
1928-29	7,397	3,398	16,357	881	24,635	28,033	24.2	27.5
1929-30	16,329	2,915	14,781	657	31,767	34,682	31.4	34.3

Compiled by Foreign Agricultural Service from official sources.

UNITED KINGDOM: Imports of apples from principal countries by months, 1927-28 to 1929-30

Month	Canada	Australia	New Zealand	United States	Other countries	Total
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
1927-28:						
July	5,091	168,000	71,273	63,636	208,727	516,727
August	15,273	-	25,454	106,909	160,363	307,999
September	30,545	-	-	725,453	122,182	878,180
October	280,000	2,545	-	878,180	280,000	1,440,725
November	577,817	-	-	1,198,907	145,090	1,921,814
December	506,545	-	-	941,816	66,182	1,514,543
January	460,726	-	-	656,726	38,182	1,155,634
February	473,454	-	-	608,363	45,818	1,127,635
March	333,454	33,090	20,364	572,726	33,091	1,002,905
April	78,909	552,363	81,454	168,000	5,090	885,816
May	2,545	1,015,635	272,363	10,182	-	1,300,725
June	-	1,041,089	282,545	5,091	-	1,328,725
Total	2,764,359	2,812,722	753,453	5,935,989	1,104,725	13,381,428
1928-29:						
July	2,545	827,271	193,454	5,091	25,455	1,053,816
August	45,818	196,000	17,818	386,908	53,454	699,998
September	81,454	2,545	2,545	832,362	25,455	944,361
October	643,999	2,545	-	1,929,451	30,545	2,606,540
November	613,453	-	-	1,537,452	-	2,150,905
December	427,636	-	-	809,453	10,182	1,247,271
January	674,544	-	-	1,127,634	30,545	1,832,723
February	407,272	-	-	1,270,180	20,364	1,697,816
March	193,454	-	7,636	903,635	2,545	1,107,270
April	104,363	137,454	58,545	959,635	66,182	1,326,179
May	40,727	417,454	213,818	404,727	30,545	1,107,271
June	-	262,181	104,363	168,000	48,364	582,908
Total	3,235,265	1,845,450	598,179	10,334,528	343,636	16,357,058
1929-30:						
July	-	63,636	198,545	25,454	137,455	425,090
August	5,091	10,182	73,818	106,909	101,818	297,818
September	122,182	5,090	-	435,272	50,909	613,453
October	753,453	-	-	733,090	226,545	1,713,088
November	1,147,998	-	-	1,033,453	132,363	2,313,814
December	890,908	-	-	707,635	50,909	1,649,452
January	786,544	-	-	722,908	40,727	1,550,179
February	687,271	-	-	529,454	22,909	1,239,634
March	641,453	-	7,636	633,817	5,091	1,287,997
April	246,909	381,818	91,636	348,727	5,090	1,074,180
May	2,545	929,089	229,091	45,818	-	1,206,543
June	2,545	1,094,544	305,454	-	7,636	1,410,179
Total	5,286,899	2,484,359	906,180	5,322,537	781,452	14,781,427

Sources: London Office, United States Department of Agriculture; Empire Fruit Notes, January 29, 1930; Fruit Supplies in 1930, The Empire Marketing Board. The total imports in 1930-31 amounted to 15,239,845 bushels. Imports in 1931-32, were 22,319,134 bushels or much heavier than usual.

Apples arrive in the United Kingdom in substantial quantities in every month in the year. Apples from Northern Hemisphere countries, particularly the United States and Canada, are received on the British markets in small quantities as early as July and continue to arrive in increasing amounts until November and then decrease slowly to negligible quantities in June. The declining receipts of apples in the spring of the year from countries in the Northern Hemisphere are augmented by new arrivals from Southern Hemisphere countries, especially Australia and New Zealand. The first shipments of New Zealand fruit are usually landed in the last part of March to be followed in April by substantial arrivals of Australian produce. Shipments from both countries continue to increase in May, reach a peak in June, taper off in July and August, and wind up in September. Imports are lightest in July, August, and September, during which period arrivals of Southern Hemisphere fruit are diminishing in quantity and those from the Northern Hemisphere just starting to get under way. (See table, page 88.) It is also during this period that the bulk of the home-grown stone fruits and berries are being marketed as well as early pears and apples.

Market preferences: The Yellow Newtown (Albemarle Pippin) is the most popular American variety on the British markets. York Imperial, Jonathan, Baldwin, Rhode Island Greening, and Golden Russet are also generally well received by the trade. Winesap is fairly well liked but not so popular as some of the other red sorts. Ben Davis, Gano, and Black Ben are not specially liked but do fairly well at Liverpool where they satisfy the Irish demand for large, red fruit. Those apples that often arrive in poor condition, such as Maiden Blush, Wagener, Grimes Golden, Delicious, and to a lesser degree, Stayman Winesap, are somewhat unpopular. Sound Grimes Golden are well liked in Liverpool and London and Delicious in Scotland, although Delicious is making considerable progress in other markets as well. Increasing quantities of Stayman Winesaps are also being sold in the United Kingdom. For a comparison of the prices received for some of the most important American apple varieties, see table, page 90.

The British markets prefer small-sized dessert fruit. In the barreled and basketed apples $2\frac{1}{4}$ and $2\frac{1}{2}$-inch sizes are preferred; in the boxed pack 163 to 216 count to the box sell more readily. The 163 and 200 sizes are especially popular as they weigh out evenly at 4 and 5 apples to the pound, respectively. Size preference varies also within the country. Although $2\frac{1}{2}$-inch barreled apples and the 163 and 175 counts in the boxed apples are preferred in Liverpool, Glasgow, and other northern markets, $2\frac{1}{4}$-inch barreled stock and 175 to 216 counts are preferred in the south. In barreled apples, sizes 2 inches and smaller, and in boxed apples counts of 234 to 252 to the box should only be shipped to London or Southampton and then only when supplies are short. Apples which are mainly used for cooking or for both cooking and dessert should be larger than the sizes indicated. Rhode Island Greening, Northwestern Greening, Twenty Ounce, and Stark make the best prices when they range from $2\frac{3}{4}$ to 3 inches in diameter. The $2\frac{1}{2}$-inch size is generally preferred in York Imperials and Baldwins.

UNITED KINGDOM: Average monthly prices received for important export varieties of American apples at the Wednesday, Liverpool auction 1927-28 to 1931-32

Year and month	U. S. No. 1, 2¼ inch per barrel					Extra Fancy 150/175			
	Virginia				N. York	Washington		Oregon	
	York Imperial	Ben Davis	Albemarle Pippin	Winesap	Baldwins	Jonathan	Winesap	Newtown	Spitzenburg
	Barrels	Barrels	Barrels	Barrels	Barrels	Boxes	Boxes	Boxes	Boxes
1927-28									
October	7.99	7.31	5.35	-	7.55	4.00	-	-	-
November	6.70	5.65	-	7.45	-	3.76	3.34	4.23	3.65
December	7.54	5.62	6.14	7.24	-	2.93	2.98	4.09	2.58
January	8.13	-	8.12	7.79	-	2.95	3.11	4.23	2.49
February	8.42	5.75	9.49	7.48	7.28	-	2.86	4.25	-
March	9.31	6.42	11.05	8.88	6.57	-	3.36	3.74	-
1928-29									
October	5.23	4.55	-	4.89	4.64	2.38	-	3.08	2.68
November	6.25	4.88	-	5.22	-	2.28	2.16	3.37	2.14
December	7.39	6.45	-	-	6.83	2.80	2.16	3.47	2.72
January	7.05	6.03	7.05	6.75	5.99	3.13	2.83	3.00	3.02
February	6.73	5.80	6.84	6.52	5.56	-	3.09	3.13	2.96
March	8.52	-	8.50	7.55	7.11	-	2.96	3.26	2.95
1929-30									
October	6.65	6.04	-	7.67	-	3.92	-	-	-
November	5.56	4.13	-	6.09	5.72	2.99	2.89	3.77	-
December	6.27	-	-	5.96	-	2.69	3.12	4.52	-
January	6.72	5.78	-	-	-	-	2.70	3.99	2.86
February	7.24	-	10.04	6.81	-	-	2.81	3.98	3.02
March	7.43	5.84	9.22	7.71	6.78	-	2.58	4.35	-
1930-31									
October	6.78	5.50	-	6.57	5.87	2.77	-	3.35	-
November	6.34	5.57	-	6.18	5.70	2.40	-	3.39	-
December	6.99	5.95	-	6.09	5.36	2.50	2.51	2.96	-
January	7.54	5.78	-	7.13	5.67	-	2.72	2.89	2.69
February	7.24	-	7.99	8.03	6.29	-	2.82	2.93	2.86
March	8.27	-	8.30	-	7.06	-	2.92	3.01	2.77
1931-32									
October	4.72	3.72	-	4.75	4.00	2.42	-	2.80	-
November	3.69	3.59	-	4.54	2.51	2.27	-	2.86	-
December	3.09	3.14	4.40	3.27	-	2.11	1.84	2.34	2.38
January	4.34	4.11	6.17	4.87	2.84	-	-	2.63	-
February	4.34	3.89	5.48	4.60	4.13	-	1.85	2.70	1.91
March	4.61	4.20	5.26	5.24	4.59	-	1.70	2.96	-

Compiled by the Foreign Agricultural Service from prices cabled weekly by the London office of the Department of Agriculture. These prices are monthly averages of the Wednesday Liverpool auction prices and represent fruit in good condition. Quotations in all years except 1931-32 were converted at par of exchange. The 1931-32 quotations have been based on the prevailing rates of exchange which are 25 to 30 per cent lower than at the corresponding periods last year.

Germany

Production and trees: Apples are produced in many parts of the Republic. There are no well-defined commercial apple-producig districts in Germany, since the orchards are planted in meadows and the welfare of livestock, which is dependent on the meadow, is the first consideration. The most important regions producing a surplus of apples are in Central Germany in the states of Saxony and Thuringia and in Southern Germany in Boden, Wurtemberg, and Palatinate. The area around Lake Constance in Southern Germany is probably the most important apple section and is fast becoming more so. A large part of the plantings are cider varieties but many trees have been top-worked in recent years to desirable dessert types. Recent unofficial estimates quoted in Der Früchtehandel in 1931, place the number of bearing fruit trees in Germany at 140,000,000, of which 50,000,000 were apple trees, 23,000,000 pear, 14,000,000 cherry, 45,000,000 plum, and 8,000,000 other fruit trees. The total non bearing trees were estimated at 90,000,000 and were about equally divided between apple and pear trees. Most of the cherry and plum trees appear to be in bearing. No official production estimates are available but the same publication quoted above estimates the average apple crop at 40,100,000 bushels, pears at 17,200,000 bushels, cherries at 5,300,000 bushels, plums at 11,000,000 bushels, other tree fruit at 1,400,000 bushels and berries at 22,000,000 bushels, making a total production of 97,100,000 bushels of fruit or an amount about equal to the average quantity of fruit imported. Much interest is manifested in Germany in planting more desirable varieties and in improving the quality of fruit produced. Most provinces are employing horticultural advisers who are active in improving growing and marketing practices, so as to enable the growers to withstand the increasing competition which they are facing from other quarters.

Consumption: Using the average production figure of 40,124,000 bushels for apples and making adjustments for the varying size of the apple crop in the three-year period 1928-29 to 1930-31, the German per capita consumption of all apples works out at a little over 50 pounds. (See table, page 8.)

Exports and imports: Germany does not produce enough apples to satisfy home requirements. Exports of German apples during the three-year period, 1928-29 to 1930-31, averaged only 34,920 bushels against imports of 11,017,000 bushels. (See table, page 92.) Germany is second only to the United Kingdom as a market for imported fruit. Imports in 1928-29 amounted to 12,149,000 bushels compared with 6,727,000 bushels in 1929-30 and 14,176,000 bushels in 1930-31. In the three-year period under survey imports from the United States averaged 3,786,000 bushels a year, or 34.4 per cent of the total; from Switzerland, 1,118,000 bushels, or 10.1 per cent; from Italy, 934,000 bushels, or 8.5 per cent; from the Netherlands, 720,000 bushels, or 6.5 per cent; from Belgium, 414,000 bushels, or 3.8 per cent; from France 145,000 bushels, or 1.3 per cent; and from all other countries 3,902,000 bushels, or 35.4 per cent. (See table, pages 92, 93.) The latter figure includes imports from Danube Basin countries, Czechoslovakia, Australia and New Zealand. Takings of Australian and New Zealand apples have increased in recent years. During the present [illegible]

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The German market prefers somewhat larger apples than the United Kingdom. In barreled apples, the 2½-inch size is the most desired and in boxed apples, 138's and 150's. Red apples are preferred in Germany prior to the Christmas season, after which yellow varieties such as Yellow Newtown, Ortley, and Winter Banana are also in demand. Ortleys usually sell at a premium in Germany. Imports are heaviest during the three months October to December, but important quantities are received throughout the year. Imports of United States apples are light during the period July to October when supplies of European apples are heavy. After November American apples usually dominate the market until the end of the season in June.

GERMANY: Exports of apples by months, July-June, 1928-29 to 1930-31

Month	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
July	376	275	880
August	936	998	1,584
September	1,038	3,793	2,419
October	4,340	7,901	3,463
November	5,001	12,702	2,756
December	1,633	11,917	776
January	707	10,588	2,445
February	75	15,861	1,558
March	229	4,513	520
April	1,172	471	691
May	691	301	360
June	488	530	772
Total	16,686	69,851	18,224

Compiled by Foreign Agricultural Service from Monatliche Nachweise uber den Auswaertigen Handel Deutschlands. Converted from doublezentners to bushels of 44 pounds.

GERMANY: Imports of apples by months and countries, 1928-29 to 1930-31

Month	United States	Nether-lands	Switzer-land	Italy	Belgium	Others	Total
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
1928-29							
July	4,660	1,313	2,856	8,508	170	71,048	88,555
Aug.	14,145	8,528	1,779	116,227	25,929	178,467	345,075
Sept.	71,499	42,043	29,512	91,556	46,377	303,021	584,008
Oct.	168,797	97,118	1,229,144	357,300	67,987	1,503,074	3,423,420
Nov.	495,103	70,512	691,051	239,844	55,531	1,215,009	2,757,050
Dec.	672,172	37,147	54,509	129,555	51,452	309,546	1,254,381
Jan.	508,701	8,568	3,472	9,735	23,539	79,115	632,930
Feb.	367,602	2,490	3,347	8,312	6,939	22,132	410,822
Mar.	649,715	7,320	5,812	8,468	29,722	35,664	736,701
Apr.	721,209	4,930	2,771	6,549	19,781	22,412	777,652
May	653,017	4,274	546	2,175	9,730	95,870	765,612
June	206,601	536	230	-	-	165,375	372,742
Total	4,535,321	284,779	2,025,029	968,229	337,157	4,000,533	12,148,948

GERMANY: Imports of apples by months and countries, 1928-29 to 1930-31, cont'd

Month	United States	Nether-lands	Switzer-land	Italy	Belgium	Others	Total
	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels	Bushels
1929-30							
July	76,880	812	-	11,168	-	77,322	166,182
Aug.	4,384	16,364	576	77,968	18,438	155,365	273,631
Sept.	16,289	67,907	65,642	57,831	53,857	171,026	432,552
Oct.	17,046	358,012	516,693	73,999	159,092	225,815	1,350,657
Nov.	26,039	537,721	428,484	38,305	180,356	228,170	1,448,075
Dec.	110,004	412,586	98,611	34,131	83,945	76,560	815,837
Jan.	118,753	138,354	21,319	20,372	43,215	32,588	374,601
Feb.	138,068	112,695	9,545	13,809	85,814	48,431	408,362
Mar.	211,817	62,786	12,246	6,403	139,646	40,524	473,422
Apr.	220,796	20,287	4,985	3,447	47,259	30,358	327,132
May	112,735	5,356	421	-	3,422	153,310	275,244
June	36,095	706	95	-	476	344,464	281,836
Total	1,088,906	1,733,586	1,158,617	337,433	815,520	1,593,469	6,727,531
1930-31							
July	3,718	1,453	80	21,334	-	150,810	177,395
Aug.	15,848	9,645	301	155,334	2,420	193,228	376,776
Sept.	88,765	13,007	6,438	172,620	12,972	425,724	719,526
Oct.	241,068	43,626	98,370	551,631	20,438	2,517,670	3,472,803
Nov.	648,442	22,482	51,262	410,476	19,045	2,365,812	3,547,519
Dec.	1,109,886	26,049	9,199	146,330	16,655	370,363	1,678,582
Jan.	839,186	8,152	1,102	11,043	3,738	94,753	957,974
Feb.	656,029	5,837	1,333	6,754	1,022	25,458	696,433
Mar.	813,492	2,851	536	17,792	9,750	28,105	872,526
Apr.	685,345	2,330	626	2,014	1,934	8,734	700,983
May	473,964	2,656	60	341	251	125,801	603,073
June	159,844	2,480	-	-	-	209,797	372,121
Total	5,735,587	140,568	169,307	1,495,669	88,225	6,546,355	14,175,711
1931-32							
July	17,707	4,915	135	8,352	322	173,717	205,148
Aug.	17,792	12,947	862	49,138	2,170	131,258	214,167
Sept.	42,118	18,363	13,363	16,334	3,061	68,433	161,672
Oct.	41,547	97,634	88,690	20,067	5,531	100,630	354,099
Nov.	58,252	109,002	96,231	5,005	3,983	139,041	411,514
Dec.	173,487	79,992	49,042	15,372	-	80,535	398,428
Jan.	174,900	34,883	11,153	571	521	17,742	239,770
Feb.	312,191	15,688	1,859	-	631	5,702	336,071
Mar.	359,189	18,408	15,497	541	22,216	14,427	430,278
April	499,031	9,745	2,200	0	26,971	22,588	560,535
May	404,729	3,016	1,483	0	5,572	70,187	484,987
June	278,626	937	1,052	0	526	155,480	436,621
Total	2,379,569	405,530	281,567	115,380	71,504	979,740	4,233,290

Compiled by the Foreign Agricultural Service from the Monatliche Nachweise über den Auswärtigen Handel Deutschlands. Converted from doublezentners to bushels of 44 pounds.

The Scandinavian Countries

Apples and pears predominate among the tree fruits grown in Denmark, Sweden, and Norway. Climatic conditions render apple crops rather uncertain, and in most years considerable quantities are imported. In the occasional year when a large crop develops, imports are considerably restricted until after the first of the year. The Scandinavian markets show a preference for the smaller sizes. In barreled apples the preferred diameter is from $2\frac{1}{4}$ to $2\frac{3}{4}$ inches. Apples larger than the $2\frac{3}{4}$-inch size are discriminated against. The demand in boxed apples is about the same as in the United Kingdom or from about 150's to 216's. The Swedish trade is intensely interested in small 2-inch Winesaps to arrive just previous to the holiday season. These are used for Christmas tree decorations. The apples must be small, clean and solid red in color. There is no demand for this size at any other season.

Denmark: The average production of apples in Denmark is placed at about 1,820,000 bushels and the number of apple trees at 3,600,000. Definite attempts are being made by the Association of Danish Fruit Growers to raise the production and marketing standards of home-grown fruit. Small quantities of domestic fruit are exported from Denmark. In the three-year period 1927 to 1929 these averaged only 427 bushels a year. Reexports of imported fruit averaged 53,700 bushels. Imports in the marketing years 1928-29 to 1930-31 averaged 840,447 bushels. There was little variation in the quantity in any year. The United States supplied 46.7 per cent, Germany 15.4 per cent, Holland 12.9 per cent, Switzerland 7.7 per cent, Italy 2.8 per cent. Russia 3.6 per cent, Australasia 3.1 per cent, and all others 7.8 per cent. Most of the takings from Holland and Germany were reexports of United States apples. (See tables, page 95.) Apples are imported the year around, the heaviest period being from November to March.

Sweden: The census figures in Sweden place the number of fruit trees at about 8,000,000. This total is composed of approximately 4,500,000 apple trees, 1,250,000 pear trees and about 1,000,000 each of cherry and plum trees. Apple trees constitute about 50 per cent of the plantings in southern Sweden but farther north the apple plantings become heavier and amount to around 85 per cent of the total. The Government is making efforts to introduce more scientific methods of cultivation and to improve the grading and packing of the fruit. In 1930, a year of good fruit crops in Sweden, the production was estimated at around 2,000,000 bushels of apples and 310,000 bushels of pears. Ordinarily, however, production runs much below this figure, and in order to satisfy the demand for apples, large quantities are imported. In the three seasons 1928-29 to 1930-31 imports averaged 1,049,000 bushels a year, over half of which came direct from the United States. Considerable quantities of American fruit are also reexported from the United Kingdom, Netherlands, Denmark, and Germany to Sweden. Russia, Italy, Switzerland, and Australia also export apples to Sweden but in much smaller quantities than the United States. Sweden is well supplied the year around with foreign fruit, but the arrivals are heaviest from September to December, the latter being the most important month. (See tables, page 96.)

Norway: There are about 2,500,000 fruit trees in Norway, slightly less than half of which are apple trees. The climate is not well adapted to tree crops, and it is only once in several years that production is sufficient to satisfy in part the home demand; however, in the 1930-31 season

DENMARK: Imports, exports, and reexports of apples, by countries, 1927-1929

Country	1927	1928	1929
	Bushels	Bushels	Bushels
Imports			
United States	486,470	402,087	419,426
Germany	168,534	113,068	150,106
Russia	32,658	11,258	56,464
Holland	172,533	71,554	117,906
Italy	29,376	27,887	21,770
Switzerland	99,631	27,802	86,929
Canada	9,805	3,427	12,060
Australia	20,206	44,070	21,724
Other countries	94,817	38,700	59,517
Total	1,114,030	739,853	945,902
Exports			
Germany	350	294	88
Sweden	-	49	102
Other countries	157	177	180
Total	507	520	370
Reexports			
Germany	47,709	10,100	19,185
Norway	2,975	4,546	5,531
Sweden	33,424	27,563	16,383
Other countries	1,555	1,842	4,948
Total	85,663	44,051	46,047

Danmarks Statistik, 1927-1929. Converted to bushels of 44 pounds.

DENMARK: Imports of fresh apples by months, July-June, 1928-29 to 1930-31

Month	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
July	28,244	32,037	42,233
August	20,573	23,349	27,317
September	49,318	77,096	34,276
October	67,932	113,306	61,764
November	137,271	153,410	128,678
December	114,469	185,036	110,325
January	79,506	62,450	89,562
February	47,439	76,429	65,306
March	87,016	83,138	84,827
April	67,606	39,502	64,965
May	46,101	44,272	50,936
June	34,006	41,727	49,919
Total	779,481	931,752	810,108

Compiled by Foreign Agricultural Service. Vareomsaetningen med Udlandet. Converted to bushels of 44 pounds.

SWEDEN: Imports of apples by countries of origin, 1927-1929

Country	1927	1928	1929
	Bushels	Bushels	Bushels
United States	455,872	574,454	674,638
United Kingdom	73,913	68,457	25,697
Italy	55,950	49,251	39,353
Netherlands	33,827	13,232	27,843
Germany	43,552	58,225	94,833
Switzerland	15,025	10,875	20,341
Australia	37,806	80,750	88,392
Denmark	36,788	39,803	50,598
Russia	48,495	44,774	41,633
Other countries	24,911	13,601	24,974
Total	826,139	953,422	1,088,302

Handel Berattelse for Ar 1929 ar Kommerskollegium. Converted to bushels of 44 pounds.

SWEDEN: Imports of apples, by months, 1928-29 to 1930-31

Month	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
July	a/ 43,569	41,884	58,734
August	a/ 96,500	32,413	31,023
September	a/ 179,429	85,544	4,425
October	a/ 182,680	115,508	5,705
November	a/ 252,069	193,745	49,462
December	a/ 159,293	163,329	100,056
January	93,113	124,098	74,762
February	58,238	79,549	55,071
March	69,700	61,724	57,815
April	76,777	49,228	46,709
May	103,027	80,966	95,426
June	57,128	100,239	68,831
Total	1,371,523	1,128,227	648,019

Kommerseilla Meddelanden. a/ Includes pears. Converted to boxes of 44 pounds.

NORWAY: Imports of apples and pears, by countries, 1928-1930

Country	1928	1929	1930
	Bushels	Bushels	Bushels
United States	141,884	156,662	125,896
Germany	20,753	48,742	31,050
Great Britain	27,263	12,830	17,161
Sweden	652	647	1,526
Denmark	2,212	4,407	2,542
Russia	776	615	744
Czechoslovakia	3,139	1,150	-
Holland	1,851	7,912	1,898
Belgium	1,195	1,772	603
Spain	-	-	251
Italy	523	382	-
Australia	1,231	1,777	2,283
Canada	880	1,642	614
Others	312	265	408
Total	202,671	238,803	184,976

Compiled by Foreign Agricultural Service from Norges Handel, 1928-1930. Converted to bushels of 44 pounds.

NORWAY: Imports of apples and pears, by months, July-June, 1928-1931

Month	1928-29	1929-30	1930-31
	Bushels	Bushels	Bushels
July	12,027	13,258	8,908
August	8,164	5,560	2,973
September	11,845	15,754	1,001
October	16,664	17,886	1,763
November	22,478	29,627	16,479
December	32,349	40,174	23,341
January	6,042	8,156	6,182
February	37,407	46,418	43,737
March	24,093	26,490	23,774
April	16,775	15,544	16,822
May	16,927	16,405	15,274
June	14,672	17,282	18,927
Total	219,443	252,554	179,181

Compiled by Foreign Agricultural Service from Vareomsetringen med Utlandet. Converted to bushels of 44 pounds.

the crop in this country was much above average. The large crop stimulated producers to take action towards putting the industry on a sounder basis. Better cultural methods have been proposed, and improvements have been suggested in packing and grading. During the three seasons, 1928-29 to 1930-31 imports into Norway averaged 217,000 bushels of apples and pears a year. This is much below the figure for Sweden and is accounted for by the heavy duty on apples. Imports are received the year around. The heaviest months are November and December and February and March. Well over one-half is shipped from the United States and, as in Sweden, considerable quantities of United States fruit is reexported from nearby European countries. (See tables, page 97.)

Greece

Apple production in Greece averages about 150,000 bushels a year, according to a report of Acting Commercial Attaché, Ralph B. Curren, Athens, Greece. The fruit is small and lacks juice and flavor. Production is not sufficient to satisfy the home markets, particularly for quality apples. In the three years 1928 to 1930 imports averaged the equivalent of 61,000 bushels a year. Of this amount the United States supplied 39.5 per cent; Yugoslavia 25.3 per cent; Turkey 16.1 per cent; Russia 9.0 per cent; Rumania 5.3 per cent, and all other countries the balance of 4.8 per cent. (See table, page 98.) Yugoslavia is the main competitor of the United States in the Greek market. Fruit from this country can be sold at about one-third less than American fruit. Apples are imported from October to April, the heaviest movement being from December 1 to February 15.

GREECE: Imports of apples by countries 1928 to 1930

Country	1928	1929	1930
	Bushels	Bushels	Bushels
United States	1,212	36,387	34,190
Yugoslavia	10,862	11,017	24,145
Turkey	10,708	13,153	5,329
Rumania	2,566	7,065	81
Russia	5,656	10,510	118
Others	2,009	5,286	1,275
Total	33,013	83,418	65,138

From report #1198 by Mr. Ralph B. Curren, Acting Commercial Attaché, Athens, Greece. Converted from kilos to bushels of 44 pounds.

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